TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

No. ~~477~~ 259

THE METROPOLITAN WASHING-MACHINE COMPANY, APPELLANT,

vs.

THE PROVIDENCE TOOL COMPANY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE DISTRICT OF RHODE ISLAND

FILED NOVEMBER 20, 1872.

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1 At a circuit court of the United States begun & holden at Providence, within and for the district of Rhode Island, on the fifteenth day of June, A. D. 1872, before Hon. Nathan Clifford, associate justice Sup. Court U. States, Hon. George F. Shepley, judge United States circuit court.

In the record of the proceedings of said court among others is the following:

2 *Bill in equity.—Filed Nov'r 2d*, 1869.

In the circuit court of the United States for the district of Rhode Island.

THE METROPOLITAN WASHING-MACHINE COMPANY *vs.* THE PROVIDENCE TOOL COMPANY. } In equity.

To the judges of the circuit court of the United States for the district of Rhode Island:

The Metropolitan Washing-Machine Company, a corporation duly established under the laws of the State of Connecticut, and located at Middletown, in the county of Middlesex, in said State, and all citizens of the State of Connecticut, bring this their bill of complaint against the Providence Tool Company, a corporation duly established by and under the laws of the State of Rhode Island, and located at Providence, in the State of Rhode Island, and all citizens of the State of Rhode Island.

And thereupon your orators complain and say, on information and belief, that heretofore, and before the 27th day of July, 1858, one Isaac A. Sergeant, then of Springfield, in the county of Clark, and State of Ohio, since deceased, as hereinafter set forth, a citizen of the
3 United States, was the original and first inventor or discoverer of a new and useful improved clothes-wringer; that being such inventor, the said Sergeant duly made application in writing to the Commissioner of Patents of the United States for the granting of letters-patent for said improvement, and duly swore to the specification for that purpose; that the said improvement was not, at the time of the said application, in public use or on sale with the consent or allowance of the said Sergeant as the inventor or discoverer thereof, contrary to the provisions of the statutes of the United States in such case made and provided, and was not known or used by others anterior to the invention or discovery thereof by the said Sergeant; that the said Sergeant duly complied in all respects with all the necessary conditions and requisitions of the statutes of the United States in such case made and provided, prior to the granting of the letters-patent hereinafter mentioned; that on the 27th day of July, 1858, letters-patent of the United States, bearing date on said last-named day, were issued to the said Sergeant according to law, whereby there were granted to him, his heirs, administrators, or assigns, for the term of fourteen years from the said 27th day of July, 1858, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof was given in the words of the said Sergeant, in a schedule which was annexed to the said letters-patent, and was made a part of the same; that the said letters-patent were issued in the name of the United States of America, and were sealed with the

seal of the Patent-Office of the United States, and were signed by the Acting Secretary of State of the United States, and were countersigned by the Commissioner of Patents, and were issued and delivered to the said Sergeant; that before the said Sergeant obtained the said letters-patent, he delivered to the said Commissioner of Patents a written description of his said invention or discovery, and of the manner and process of making, constructing, and using the same, in such full,
4 clear and exact terms as to enable any persons skilled in the art and science to which it appertains, or with which it is most nearly connected, to make, construct, and use the same, and also therein particularly specified and pointed out the part, improvement, or combination which the said Sergeant claimed as his invention or discovery; that the said Sergeant accompanied the said description with a model of his said improved machine; that said description was signed by said Sergeant, and was attested by two witnesses, and was filed in the said Patent-Office; and that the said Sergeant duly made oath, before a person authorized by law to administer oaths, that he did verily believe that he was the original and first inventor or discoverer of the said improvement; that he did not know or believe that the same was ever before known or used, and that he was a citizen of the United States; and the said Sergeant also paid into the Treasury of the United States the sum of thirty dollars.

And your orators, in like manner, further aver that the said Isaac A. Sergeant departed this life on the twenty-eighth day of July, A. D. 1859, leaving him surviving one Ann Jane Sergeant, Charles E. Sergeant, and Henry C. Sergeant, as his heirs at law; that the said Isaac A. Sergeant died intestate, and that the said Ann Jane Sergeant, residing at Dayton, in the county of Montgomery, State of Ohio, was thereupon, on the 9th day of February, A. D. 1867, duly appointed administratrix of the estate of said Isaac A. Sergeant, deceased, by the probate court of Clark County, in the State of Ohio, having jurisdiction thereof, as by a duly authenticated copy of said letters of administration in the possession of your orators, to which your orators crave leave to refer, will fully and at large appear. And your orators in like manner aver, that by the said letters of administration the said Ann Jane Sergeant became vested with all the rights and privileges secured to the said Isaac A. Sergeant in the said letters-patent, in trust for the said heirs at law of said Isaac A. Sergeant, deceased, as fully and entirely, in all respects, as the same had been possessed and enjoyed by said Isaac A. Sergeant, deceased, in his lifetime.

5 And your orators, in like manner, further aver, that after the said 27th day of July, A. D. 1858, and the said 9th day of February, A. D. 1867, the said Ann Jane Sergeant, administratrix, as aforesaid, did, on account of a defective specification, duly and in accordance with the statute in such case made and provided, surrender the said patent for the purpose of having the said defective specification corrected, and the inventions or discoveries therein described and separated, and two new and separate letters-patent issued therefor; and that the said Ann Jane Sergeant, administratrix as aforesaid, also paid on said surrender the further duty of fifteen dollars as required by law; and that the said Ann Jane Sergeant did, for valuable considerations to her paid by one Sylvenus Walker, then of the city of Newark, in the county of Essex, and State of New Jersey, by a certain instrument in writing by her signed and sealed, bearing date the 22d day of February, A. D. 1867, assign, sell, and set over unto the said Sylvenus Walker all the right, title and interest of her, the said Ann Jane Sergeant, in the said inven-

tion and the said letters-patent, and in any re-issue or re-issues thereof, for, to, and in the United States of America, for and during the full term for which said letters-patent were or might be granted; and that the said Ann Jane Sergeant, administratrix as aforesaid, did, in and by the said instrument in writing, under her hand and seal, authorize and request the Commissioner of Patents to re-issue the said letters-patent to the said Sylvenus Walker, as the assignee of the whole right and title of her, the said Ann Jane Sergeant, administratrix, thereto, which said assignment was duly recorded in the Patent-Office of the United States, in Liber I 9, page 135, of transfers of patents on the 17th day of April, 1867, whereof a copy is hereunto annexed, marked A, which your orators pray may be taken as part of this bill. And that the said Ann Jane Sergeant, Charles E. Sergeant, and Henry C. Sergeant, the heirs at law of said Isaac A. Sergeant, deceased, and equitable owners of said letters-patent as aforesaid, did, for valuable
6 consideration to them paid by the said Sylvenus Walker, by a certain instrument in writing by them signed and sealed, bearing date the 7th day of January, A. D. 1867, assign, sell, and set over to the said Sylvenus Walker all the right, title, and interest of them, the said Ann Jane Sergeant, Charles E. Sergeant, and Henry C. Sergeant, in the said invention and the said letters-patent, and in any re-issue or re-issues thereof, for, to and in the United States of America, for and during the full term for which said letters-patent were or might be granted, which last-mentioned assignment was duly recorded in the Patent-Office of the United States, in Liber Z 8, of transfers of patents, page 247, on the 17th day of January, 1867, whereof a copy is hereunto annexed, marked B, which your orators pray may be taken as part of this bill. And that upon said surrender of said letters-patent and the payment of said further duty as aforesaid, and said several assignments, and the said authority and request in said first-mentioned assignment contained, and on the 18th day of June, 1867, and the 31st day of December, 1867, two new patents, bearing date the 18th day of June, 1867, and the 31st day of December, 1867, respectively, numbered respectively 2652 and 2829, were duly issued to the said Sylvenus Walker, his heirs, administrators, or assigns, on two corrected specifications, by the said Ann Jane Sergeant, administratrix as aforesaid, duly made and filed, for new and useful improvements in clothes-wringers; and each of said last-named letters-patent was issued for the residue of the then unexpired term of said original letters-patent, that is to say, for the term of fourteen years from the said 27th day of July, 1858.

And your orators further aver, that a copy of said letters-patent so as aforesaid re-issued to said Walker on the 31st day of December, 1867, and numbered 2829, and of the schedule thereto annexed, is hereunto annexed, marked C; and your orators pray that the same may be taken as part of this bill. And your orators aver that the last aforesaid letters-patent so re-issued on the 31st day of December, 1867, together with the said cor-
7 rected specification on which the same was issued, have the same effect and operation in law as though the same had been originally filed in such corrected form before the issuing of the said original patent, and that said letters-patent so re-issued, and bearing date on the 31st day of December, A. D. 1867, as aforesaid, have the same effect in law as though they had been originally issued for the term of fourteen years from the said 27th day of July, A. D. 1858. And your orators further aver, of their own knowledge, that after the said re-issue of said letters-patent, the said Sylvenus Walker, then of the city of Boston, in the State of Massachusetts, for valuable considerations to

him paid, did, by an instrument in writing by him duly executed, a copy of which is hereunto annexed, marked D, and dated the 13th day of June, A. D. 1868, assign, sell, and set over unto your orators all the right, title, and interest of him the said Walker in said invention, as secured by said letters-patent, and in any divisions and re-issues thereof, for, to, and in the United States of America, for and during the full term for which said letters-patent and the said re-issues thereof are or may be granted, and the said assignment was duly recorded in the Patent-Office of the United States, on the 6th day of July, A. D. 1868, in liber O 10, of transfers of patents, page 290, as by the said assignment and the certificate of the recording thereof ready in court to be produced, whereof a copy is hereunto annexed, marked D, as aforesaid, will fully and at large appear.

And your orators aver that by virtue of the hereinbefore recited premises your orators became and are possessed of and vested with the sole aforesaid exclusive right during the period aforesaid, to make, use, and vend to others to be used, the said several inventions of the said Isaac A. Sergeant, as described and set forth in the last aforesaid two re-issued patents within the whole of the United States, and have from the day of the date of the said last-mentioned assignment to them, continued to be and now are the sole and exclusive owners of the said sole and exclusive right to said several inventions and things patented within the whole of the United States.

8 And your orators further show that since your orators, the said Metropolitan Washing-Machine Company, became so as aforesaid vested with said sole and exclusive rights, they have continued to enjoy the same and each thereof, in the manufacture and sale of the said patented clothes-wringers, except as said rights have been infringed upon by said defendants, and have derived great profit from the use of said rights.

And your orators further show, upon information and belief, that ever since the first day of January, A. D. 1869, the defendants, well knowing the premises and the rights and privileges secured to your orators by the said re-issued letters-patent, bearing date the 31st day of December, A. D. 1867, so as aforesaid acquired by the transfers hereinbefore averred and set forth, did contrive to injure your orators and to defraud them of their profits, benefits, and advantages which might and otherwise would have accrued to them at the city of Providence, and within the district of Rhode Island, and without the licence and permission of your orators, since the first day of January, A. D. 1869, have unlawfully and wrongfully sold, and are now unlawfully and wrongfully making and selling, large numbers of clothes-wringers, as aforesaid, and have unlawfully and wrongfully sold, and are now unlawfully and wrongfully selling, large numbers of clothes wringers as aforesaid, made substantially as described in said last-named re-issued letters-patent, and have unlawfully and wrongfully sold and are now unlawfully and wrongfully selling large numbers of clothes wringers as aforesaid, containing a portable frame or yoke, with uprights or their equivalents for supporting a clothes-wriging mechanism in position on one side of a common wash-tub, substantially as and for the purposes described and made substantially as described in the said last-named re-issued letters-patent, and in infringement thereof, and have unlawfully and wrongfully sold, and are now unlawfully and wrongfully selling, large numbers of clothes-wringers as aforesaid, having an

9 adjustable clamping device employed to attach a clothes-wringer to one side only of a wash-tub, substantially in the manner and

for the purpose described and set forth, and made substantially as described in the said last-named re-issued letters-patent and in infringement thereof.

But what number of clothes-wringers aforesaid have been used or intended to be used, or have been so sold or caused to be sold by said defendants, your orators do not know and cannot state; but, upon information and belief, your orators aver that they have sold to others to be used large numbers of the same, and are now selling to others to be used large numbers of the same, and that they have derived and received, and are still deriving and receiving, from such sale great gains and profits, but to what amount your orators are ignorant, and cannot set forth; but your orators believe the same to be of the full sum of twenty thousand dollars, and so charge the fact to be, and pray that the defendants may be required to make a disclosure of all such gains and profits.

And your orators in like manner aver that the defendants continued to sell said clothes-wringers as aforesaid, though warned and requested to desist from such sale and use, or to pay to your orators the said gains and profits, by means whereof the defendants have greatly injured and are still greatly injuring your orators, and have deprived and are still depriving your orators from receiving the gains and profits from the exclusive right to use the inventions and improvements claimed in the said letters-patent re-issued to Sylvenus Walker as aforesaid, and bearing date December 31, 1867, and numbered 2829, in the manufacture, sale, and use of clothes-wringers as aforesaid, which your orators otherwise, and but for said wrongful acts of the defendants, would have obtained and received.

And your orators pray that the said defendants may be compelled, by a decree of this court, to account for, and to pay over to your orators all such gains and profits as have accrued, or arisen to, or been earned or received by, said defendants, and all such gains and profits as have been received, or to which they may be entitled by reason of such sale by them of such clothes-wringers, manufactured in accordance with the specifications of the said last-named re-issued letters-patent, and in infringement thereof, and all such gains and profits as your orators would have received, but for the unlawful acts and doings of the said defendants; and that the said defendants, their attorneys, solicitors, servants, agents, and workmen may be perpetually enjoined and restrained by the decree and injunction of this court, from directly or indirectly making, or causing to be made, or using or causing to be used, or vending to others to be used in any manner, any clothes-wringers as aforesaid, containing a portable frame or yoke, with uprights or their equivalents for supporting a clothes-wringing mechanism in position on one side of a common wash-tub, or containing an adjustable clamping-device employed to attach a clothes-wringer to one side only of a wash-tub, substantially as described in said last-named re-issued letters-patent; and from using any of the inventions or improvements of the said Isaac A. Sergeant, deceased, described and claimed in said re-issued letters-patent in the manufacture of clothes-wringers, and from infringing upon or violating the said last-named re-issued letters-patent, in respect to the exclusive rights vested in your orators; and that all such infringing goods may be forthwith destroyed or delivered up to your orators; and that the defendants may be decreed to pay the costs of this suit; and that your orators may have such other relief as the equity of the case may require, and as to your honors may seem meet.

To the end, therefore, that the said defendants may, if they can, show why your orators should not have the relief hereby prayed, and may full, true, direct, and perfect answer make, according to the best of their knowledge, remembrance, information, and belief, to the several matters hereinbefore averred and set forth, as fully and particularly as i f the same were here repeated, paragraph by paragraph, and the y
11 specially interrogated thereunto severally, may it please you honors to grant to your orators a writ of subpœna ad respondendum, issuing out of and under the seal of this honorable court, directed to the said defendants, The Providence Tool Company, commanding them to appear and make answer to this bill of complaint, and to perform and abide by such order and decree herein as to this court may seem required by the principles of equity and good conscience. May it also please your honors to grant to your orators a provisional or preliminary injunction, issuing out of and under the seal of this honorable court, enjoining and restraining the defendants, their officers, attorneys, solicitors, servants, workmen, and agents to the same purport, tenor, and effect hereinbefore prayed for in regard to said perpetual injunction. And your orators will ever pray, etc.

(Signed)

THE METROPOLITAN WASHING-MACHINE COMPANY,
By DAVID LYMAN, *Treasurer.*

F. C. NYE, *Solicitor for Complainants.*
T. A. JENCKES, *of Counsel.*

UNITED STATES OF AMERICA,
Southern District of New York, ss:

I, David Lyman, treasurer of the Metropolitan Washing-Machine Company, one of the complainants in the foregoing bill of complaint, do solemnly swear that I have read the said complaint, and know the contents thereof, and that the facts and statements therein contained, which are made upon knowledge, are true to the knowledge of this affiant; and that those which are made upon information and belief are true according to the best of his information and belief, and according to the best of the information and belief of said complainants.

(Signed) DAVID LYMAN.

Subscribed and sworn to before me this 30th day of October, 1869.

(Signed) R. E. STILLWELL,
U. S. Com. for the S. D. N. Y.

12 EXHIBITS.

A.

Whereas letters-patent of the United States, bearing date the 27th day of July, 1858, were granted to Isaac A. Sergeant, of Springfield, in the county of Clarke and State of Ohio, for certain new and useful improvements in clothes-wringers; and that the said Isaac A. Sergeant departed this life on the twenty-eighth day of July, 1859; and whereas I, Ann Jane Sergeant, of Dayton, in the county of Montgomery and State of Ohio, have been duly appointed his administratrix; and whereas Sylvenus Walker, of Newark, in the county of Orange and State of New Jersey, is desirous of acquiring an interest therein:

Now this indenture witnesseth that, for and in consideration of the sum of twenty-five dollars to me in hand paid, the receipt of which is

hereby acknowledged, I have assigned, sold, and set over, and I do hereby assign, sell, and set over unto the said Sylvenus Walker all the right, title, and interest which I have in the said invention, as secured by said letters-patent, and to any re-issue or re-issues thereof, for, to, and in the entire territory of the United States; and I do hereby authorize and request the Commissioner of Patents to re-issue the said letters-patent to the said Sylvenus Walker, as the assignee of my whole right and title thereto, the same to be held and enjoyed by the said Sylvenus Walker for his own use and behoof, and for the use and behoof of his legal representatives, to the full end of the term for which said
13 letters-patent were granted, and for the term of any extension thereof, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

In testimony whereof I hereunto set my hand and affix my seal this 22d day of February, 1867.

ANN JANE SERGEANT. [L. S.]

Signed and delivered in presence of—
Witnesses:
ARTHUR E. UNDERWOOD.
THOMAS D. MITCHELL.

[5-cent inter. rev. stamp, cancelled.]

STATE OF OHIO,
County of Montgomery, ss:

On this 22d day of February, 1867, before me, a justice of the peace within and for said county, personally appeared the within-named Ann Jane Sergeant, to me known to be the individual described in and who executed the foregoing assignment, and acknowledged that she executed the same for the uses and the purposes therein mentioned.

THO'S D. MITCHELL, *J. P.* [SEAL.]

[5-cent inter. rev. stamp, cancelled.]

U. S. PATENT-OFFICE.

Received for record April 17th, 1867, and recorded in liber I 9, page 135, of transfers of patents. In testimony whereof I have caused the seal of the Patent-Office to be hereunto affixed.

{ SEAL OF PATENT-OFFICE FOR THE UNITED STATES OF AMERICA. }

A. M. STOUT,
Acting Com'r of Patents.

14 B.

Whereas letters-patent of the United States, bearing date the 27th day of July, 1858, were granted to Isaac A. Sergeant, of Springfield, in the county of Clarke and State of Ohio, for certain new and useful improvements in clothes-wringers; and that the said Isaac A. Sergeant departed this life on the twenty-eighth day of July, 1859; and whereas Ann Jane Sergeant, Charles E. Sergeant, and Henry C. Sergeant, his legal representatives, became the owners and holders of said letters-patent, as recorded in the Patent-Office of the United States, bearing date the seventh day of September, 1859; and whereas Sylvenus Walker, of Newark, in the county of Orange and State of New Jersey, is desirous of acquiring an interest therein:

Now this indenture witnesseth that, for and in consideration of the

sum of ($25) twenty-five dollars to us in hand paid, the receipt of which is hereby acknowledged, we have assigned, sold, and set over, and we do hereby assign, sell, and set over unto the said Sylvenus Walker all the right, title, and interest which we have in the said invention, as secured by the said letters-patent, and to any re-issue or re-issues thereof, for, to, and in the entire territory of the United States; the same to be held and enjoyed by the said Sylvenus Walker for his own use and behoof, and for the use and behoof of his legal representatives, to the full end of the term for which said letters-patent are granted, and for the term of any extension thereof, as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made.

15 SEAL OF THE PATENT-OFFICE FOR THE UNITED STATES OF AMERICA. In testimony whereof we hereunto set our hands and affix our seals this seventh day of January, 1867.

ANN JANE SERGEANT. [L. S.]
C. E. SERGEANT. [L. S.]
HENRY C. SERGEANT. [L. S.]

Sealed and delivered in the presence of—

Witnesses:
A. C. ZEARING.
THO'S D. MITCHELL.
L. E. MC KUMEY, (as to C. E. Sergeant.)
JNO. STURT as to H. C. Sergeant.)

[5-cent inter. rev. stamp cancelled.]

STATE OF OHIO,
County of Montgomery, ss:

On this seventh day of January, 1867, before me, a justice of the peace within and for said county, personally appeared the within-named Ann Jane Sergeant, (widow of Isaac A.,) to me known to be one of the individuals described in and who executed the foregoing assignment, and acknowledged that she executed the same for the uses and the purposes therein mentioned.

THO'S D. MITCHELL, *J. P.* [SEAL.]

[5-cent inter. rev. stamp cancelled.]

STATE OF OHIO,
County of Hamilton, ss:

16 On this 8th day of January, 1867, before me, a notary public within and for said county, personally appeared the within-named Charles E. Sergeant, to me known to be one of the individuals described in and who executed the foregoing assignment, and acknowledged that he executed the same for the uses and purposes therein mentioned.

CHA'S E. SERGEANT.

In testimony whereof I hereunto set my hand and affix my seal this 8th day of January, 1867.

[NOTARIAL SEAL.]

L. E. MCKUMEY,
Notary Public.

[5-cent inter. rev. stamp cancelled.]

STATE OF OHIO,
County of Franklin, ss:

On this 9th day of January, 1867, before me, a notary public within and for said county, personally appeared the within-named Henry C.

Sergeant, to me known to be one of the individuals described in and who executed the foregoing assignment, and acknowledged that he executed the same for the uses and purposes therein mentioned.

HENRY C. SERGEANT.

In testimony whereof I hereunto set my hand and affix my seal, this 9th day of January, 1867.

[NOTARIAL SEAL.] JOHN STURT,
Notary Public in and for Franklin County, O.

[5-cent inter. rev. stamp cancelled.]

U. S. PATENT-OFFICE.

17 Received for record January 17th, 1867, and recorded in liber Z 8, page 247, of transfers of patents. In testimony whereof I have caused the seal of the Patent-Office to be hereunto affixed.

{ SEAL OF THE PATENT-OFFICE OF THE UNITED STATES OF AMERICA. } T. C. THEAKER,
Com. of Patents.

C.

No. 2829.—*Re-issue.*

The United States of America to all to whom these letters-patent shall come:

Whereas Ann Jane Sergeant, of Dayton, Ohio, administratrix of the estate of Isaac A. Sergeant, deceased, assignor to Sylvenus Walker, of Newark, New Jersey, has alleged that said Isaac A. Sergeant invented a new and useful improved clothes-wringer, (for which letters-patent were issued to him, dated July 27, 1858, which letters having been surrendered by said administratrix, the same have been cancelled and new letters ordered to issue to said assignee on an amended specification,) and had made oath that he was a citizen of the United States, that he did verily believe he was the original and first inventor or discoverer of the said invention, and that the same hath not, to his knowledge and belief, been previously known or used; said administratrix having paid into the Treasury of the United States the sum of thirty dollars,

18 and presented a petition to the Commissioner of Patents praying that a patent may be issued therefor:

These are, therefore, to grant to the said Sylvenus Walker, his executors, administrators, or assigns, for the term of fourteen years from the twenty-seventh day of July, one thousand eight hundred and fifty-eight, the full and exclusive right and liberty of making, using, and vending to others to be used, the said invention, a description whereof is given in the annexed schedule, and made a part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent-Office to be hereunto affixed.

Given under my hand at the city of Washington, this thirty-first day of December, in the year of our Lord one thousand eight hundred and sixty-seven, and of the Independence of the United States of America the ninety-second.

O. H. BROWNING,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent-Office.

{ SEAL OF THE PATENT-OFFICE FOR THE UNITED STATES OF AMERICA. } T. C. THEAKER,
Commissioner of Patents.

UNITED STATES PATENT-OFFICE.

Ann Jane Sergeant, of Dayton, Ohio, administratrix of the estate of Isaac A. Sergeant, deceased, assignor to Sylvenus Walker, of Newark, New Jersey. Letters-patent No. 21,029, dated July 27, 1858; re-issue No. 2,829, dated December 31, 1867. Improved clothes-wringer.

The schedule referred to in these letters-patent, and making part of the same.

To all whom it may concern:

Be it known that Isaac A. Sergeant, of Springfield, in the county of Clarke and State of Ohio, invented certain new and useful improvements in clothes-wringers; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form part of this specification, in which the marks of reference correspond in all the figures.

Figure 1 is a front perspective view of the frame for supporting the wringing mechanism of the machine, as attached to one side of a common wash-tub by means of a clamping device.

Figure 2 is a horizontal section through the clamping device, by which the frame of the machine is attached to one side of a wash-tub.

Figure 3 is a vertical section through the same device.

The first part of this invention consists of a portable machine, which may be temporarily attached to one side of a common wash-tub, or readily disconnected therefrom, whenever desired, and is especially adapted to wringing clothes.

The second part of this invention consists in a portable frame, and employed for supporting the wringing mechanism of the machine upon one side of a common wash-tub, by means of a clamping device, which is made to gripe one side of a wash-tub, for the purpose of attaching and sustaining temporarily the entire wringing mechanism of the machine upon one side of a common wash-tub, in a firm and expeditious manner, regardless of the diameter of the tub, which greatly accelerates the operations of washing, rinsing, and wringing of clothes, as will be hereinafter more fully set forth and described.

To enable others to understand, construct, and use the invention, a description of one of the methods in which it may be carried out is hereafter more fully given.

In the drawings annexed, A represents a common wash-tub. B is a yoke whose inner margin is of U-form, the sides of which extend upwards, forming uprights SS^1. From the lower end of yoke B extend two jaws, C C^1, the latter of which contains, within a dovetail groove, a wedge or key, D, whose exposed side is made slightly concave, as shown in fig. 2. The office of the above-described jaws and wedge is to hold the frame, composed of the yoke B with uprights SS^1 for supporting the wringing-mechanism of the machine, in position for use, on one side of a common wash-tub, in a permanent manner, temporarily, regardless of the diameter of the tub or the thickness of its rim, in reference to which service they are termed collectively the "vise."

This arrangement affords great facility for successively washing, rinsing, and wringing out the clothes from several waters in as many tubs, the wringer being readily changed from tub to tub.

Omitting to describe the general features of the wringing-mechanism

of the machine, which will form the subject of another application for letters patent, of even date with this, and then more particularly the frame for supporting the wringing-mechanism in position, and the clamping device by which the frame for holding the wringing-mechanism is attached to one side of a common wash-tub, which forms the subject of the present invention.

When it is desired to have free access to the tub, the wringer may be instantly removed therefrom, so as to allow the operations of washing, rinsing, and wringing to succeed each other, without trouble or delay, or the wringer may be detached instantly, for the purpose of cleaning its parts where dirt is apt to lodge—a common necessity to avoid soiling the next batch after dealing with much-soiled or colored garments.

It will be particularly observed that this wringing-machine
21 differs very materially with those heretofore constructed, in its attachment, by a clamping device, to one side only of a common wash-tub, so it can be constructed separate from and independent of the wash-tub, to which it may be clamped, whenever desired, regardless of its size or diameter; and a further distinctive feature consists in the manner of operation. The wringer being placed in position on one side of the tub, and the jaws made to gripe the same firmly, the clothes are admitted to the wringing-mechanism of the machine, and pass through it as fast as the water is expelled therefrom, and they are received at the opposite side of the machine into a basket, piece by piece, as they are wrung out. By this means articles that are of lighter fabric, as lace curtains, can be operated upon lightly, as those that are heavy require more force. By this means lace-curtains may be wrung without injury, as the force required to expel the water, when all are wrung together in a bag, will tear the lighter fabrics before the water is sufficiently expelled from those that are stout and heavy.

I am thus enabled to construct a wringing-machine as a separate and independent device from the wash-tub, box, or other receptacle for receiving the water when expelled from the clothes.

Wringers heretofore constructed have been attached to the opposite sides of the box or vessel, consequently could not be readily attached to common wash-tubs of various diameters, therefore the box must be of a diameter to correspond to that for which the wringer is adapted, and would thus constitute a part of the device or wringing-machine. Thus, by means of the portable frame for holding the wringing-mechanism adapted to clamp the edge of one side only of a common wash-tub, I am enabled to overcome the serious objections referred to above.

In the clamping device of the invention, a wedge or set-screw, cam, or spring, when having a bearing, so that when power is applied to them they, in conjunction with the jaws, gripe the edge of the tub, as a "vise" may be used, in the manner and for the purposes set forth.

22 Having thus described the invention, what is claimed as new, and desired to be secured by letters-patent, is—

1. The employment or use of a portable frame or yoke, B, with uprights S S^1, or their equivalents, for supporting a clothes-wringing mechanism in position on one side of a common wash-tub, for the purposes set forth.

2. The application of an adjustable clamping device, when employed

to attach a clothes-wringer to one side only of a wash-tub, substantially in the manner described and for the purposes set forth.

ANN JANE SERGEANT.

Witnesses:
ARTHUR E. UNDERWOOD,
THO'S D. MITCHELL.

D.

Whereas Isaac A. Sergeant did obtain letters-patent of the United States for an "improvement in clothes-wringers," dated July 27th, 1858, and numbered 21029; and whereas said patent was surrendered by Ann Jane Sergeant, administratrix of the estate of the said Isaac A. Sergeant, deceased, on account of a defective specification, and the same was duly assigned by the heirs and the said administratrix and re-issued to me, Sylvenus Walker, now of Boston, Massachusetts, in two divisions, as patents both for "improved clothes-wringers," one being dated June 18th, 1867, and numbered 2652, and the other being dated December 31st, 1867, and numbered 2829;

And whereas the Metropolitan Washing-Machine Company, a
23 corporation created under the laws of Connecticut and located in Middlefield, in said State, is desirous of purchasing the said invention and the said patents, and all my right, title, and interest to the same, and the re-issues, divisions, and extension thereof:

Now this indenture witnesseth that, for and in consideration of one dollar and other valuable considerations to me in hand paid, the receipt whereof is hereby acknowledged, I have assigned, sold, and set over, and do hereby assign, sell, and set over, unto the said Metropolitan Washing-Machine Company all the rights, title, and interest which I have in the said invention, as secured to me by said letters-patent, or in any divisions or re-issues thereof, and also all the right, title, and interest which I now possess, or may hereafter possess, in the right to the same after the same may or shall have been extended, the same to be held and enjoyed by the said corporation for their own use and behoof, and for the use and behoof of their legal representatives, to the full end of the term for which said letters-patent are or may be granted, as fully and entirely as the same would or could have been held and enjoyed by me if this assignment and sale had not been made.

In witness whereof I have hereunto set my hand and affixed my seal, this 13th day of June, A. D. 1868.

SYLVENUS WALKER. [L. S.]

[5-cent inter. rev. stamp, cancelled.]

Signed, sealed, and delivered in presence of—
GEORGE F. HOLMES.

24 U. S. PATENT-OFFICE.

Received for record July 6, 1868, and recorded in Liber O 10, page 290, of transfers of patents.

In testimony whereof I have caused the seal of the Patent-Office to be hereunto affixed.

SEAL OF THE PATENT-OFFICE FOR THE UNITED STATES OF AMERICA.

A. M. STOUT,
Acting Com. of Patents.

25 *Answer.—Filed Jan'y 24, 1870.*

In the circuit court of the United States for the district of Rhode Island.

THE METROPOLITAN WASHING-MACHINE COMPANY
vs.
THE PROVIDENCE TOOL COMPANY.

Circuit court of the United States for the district of Rhode Island.

The answer of the Providence Tool Company, defendants, to the bill of complaint of the Metropolitan Washing-Machine Company.

To the hon. the justices of the circuit court of the United States for the first circuit:

And thereupon the said defendants, saving and reserving all advantage and benefit of exception to the said bill of complaint, for answer thereunto, or to so much and such parts thereof as they are advised is material or necessary for them to make answer unto, answering, say:

That they are informed and believe it to be true that letters-patent of the United States were granted to Isaac A. Sergeant, for an alleged new and useful improved "clothes-wringer," dated July 27, A. D. 1858, and crave the original letters-patent at the hearing for all matter therein contained.

26 And these defendants further answering say, that they do not know and are not informed, save by the said bill of complaint, whether or not said Isaac A. Sergeant, on the 28th day of July, A. D. 1859, departed this life, as stated in said bill of complaint, or whether or not said Isaac A. Sergeant left surviving him one Ann Jane Sergeant, Charles E. Sergeant, and Henry C. Sergeant, as his heirs at law, or whether or not said Isaac A. Sergeant died intestate, or whether or not said Ann Jane Sergeant, on the 8th day of February, A. D. 1867, was duly appointed administratrix of the estate of said Isaac A. Sergeant, as above stated in said bill of complaint, and leave the complainants to make such proof thereof as they may be advised is material.

And the said defendants further answering say, that they do not know and are not informed, save by said bill of complaint, whether or not on the 22d day of February, A. D. 1867, the said Ann Jane Sergeant did assign all her right, title, and interest in the said alleged invention and the said letters-patent, and any re-issue or re-issues thereof, to Sylvenus Walker, as stated in said bill of complaint, or whether or not the said Ann Jane Sergeant, Charles E. Sergeant, and Henry C. Sergeant, the alleged heirs at law of the said Isaac A. Sergeant, by a certain instrument in writing by them duly executed, dated January 7, A. D. 1867, did assign to the said Sylvenus Walker, all the right, title, and interest in the said alleged invention, and the said letters-patent, and in any re-issue or re-issues thereof, as stated in said bill of complaint, or whether or not said Sylvenus Walker, by an instrument in writing by him duly executed, dated June 13th, A. D. 1868, did assign to the complainants all the right, title, and interest in said alleged invention as secured by said letters-patent, and in any divisions and re-issues thereof, as stated in said bill of complaint, and leave the complainants to make such proof thereof as they may be advised as material.

And these defendants further answering say, that they are informed and believe it to be true, that after the said 27th day of July, A. D. 1858, and the said 9th day of February, A. D. 1867, the said Ann Jane Sergeant did surrender the said original letters-patent, together with amended specifications; and that on the 18th day of June, A. D. 1867, and the 31st day of December, A. D. 1867, dated these dates respectively, and numbered, respectively, [2652, and 2829, re-issued letters-patent were duly issued to Sylvenus Walker, on the alleged amended and corrected specifications of the said Isaac A. Sergeant patent for the unexpired term of such original letters-patent granted July 27, A. D. 1858.

And these defendants further answering say, that they are informed and belive it to be true that the said re-issues of said original letters-patent were sought to be procured for the purpose of embracing therein more than was the invention of the said Isaac A. Sergeant, and that such re-issued letters-patent are therefore fraudulent and void; that they were obtained for the purpose of endeavoring to embarrass these defendants and other parties manufacturing wringing-machines by the assertion of a colorable claim to a subject of invention, which, if construed by the court as broadly as the complainants by their assertions claim that it should be, would prevent the manufacture of any wringing-machine that was detachable from a tub.

And these defendants further answering, aver that long prior to the alleged invention on the part of the complainants, wringing-machines were in common use wherein the wringer was attached to one side of the tub, and that such instances are shown in the letters-patent of Isaac S. Wright, granted July 18, A. D. 1832, and in the drawings and models belonging the following rejected applications, filed in the Patent-Office: J. P. Martin, rejected February 17, A. D. 1852; W. W. Reid, rejected February 27, A. D. 1857; Henry Pace, rejected June 7, A. D. 1848; Harrison Hagan's patent, granted July 5, A. D. 1845; John McLaughlin's patent, granted October 16, A. D. 1855; also letters-patent granted by the government of Great Britain to one Ken-
28 dall, A. D. 1790, number 1786 of that series; letters-patent granted by the government of Great Britain to one Barrett, A. D. 1808, number 3175 of that issue; letters-patent granted by the government of Great Britain to one Cawkwell, A. D. 1813, number 3641 of that issue; letters-patent granted by the government of Great Britain to one J. Jessop, A. D. 1856, number 2588 of that issue; letters-patent of the United States granted to Septimus Tucker, January 12, A. D. 1809; letters patent of the United States granted to E. Berry, November 12, A. D. 1829; letters-patent of the United States granted to B. Hinkley, January 31, A. D. 1831; letters-patent of the United States granted to S. P. Wright, July 18, A. D. 1832; letters-patent of the United States granted to T. Pierce, December 29, A. D. 1832; all of which said letters-patent, together with all rejected applications aforesaid, these defendants crave leave to refer to at the hearing.

And the defendants further answering deny, that in view of the fact that long before the date of the complainants' alleged invention, wash-tubs were old, wringing-machines well known, and wringing-machines attached to a tub known; that it constituted any patentable novelty to make a wringing-machine capable of disconnection from a tub, and they submit that said re-issued letters-patent are for this cause inoperative and void. Furthermore these defendants are informed, and believe it to be true, that upon the application for the re-issue above mentioned, the said Ann Jane Sergeant applied for a claim to be granted to her

broadly, for the combination of a clamping device with the frame of a wringer, which application was rejected; and that the said Ann Jane Sergeant thereupon modified her claim, and limited it to the employment of a portable yoke, independent of both tub and wringing-mechanism, and to the employment of a clamping device in the manner described, necessarily requiring a yoke; and these defendants crave leave to refer at the hearing to said re-issued letters-patent, and to all of the correspondence had in their procurement.

29 And these defendants respectfully submit that the true construction of the complainants' claim, in so far as the first claim thereof is concerned, is to a structure which involves the combination of a portable frame or yoke independent of the tub—a wringing-mechanism and a tub—said frame or yoke constituting the intermediate connection between the tub and the wringer, and that the true construction of the second clause is the employment of a clamping device in combination with yoke and wringing-machine.

And these defendants further answering, deny that they have made, used, or sold, or caused to be made, used, or sold, or that they are now making, using, or selling wringing-machines substantially like those described or claimed in, or patented, or covered by, or in any way made known in the said letters-patent issued to Isaac A. Sergeant, or in the said re-issue thereof to Sylvenus Walker.

And these defendants further deny that, in the manufacture of wringing-machines as hereinafter admitted, that they infringe in any manner upon any lawful subject of claim belonging to said complainants; that is to say, they do not employ or use the portable frame or yoke for supporting the clothes-wringing mechanism, nor do they employ an adjustable clamping device in combination with a wringing-machine and a tub.

And these defendants further answering, deny that they make use of wringing-machines, or ever have, for laundry purposes, but admit that they are manufacturers only of wringing-machines to be used by the public in connection with wash-tubs of common or unusual construction or otherwise, as the purchasers thereof may see fit; and that such wringing-machines so constructed by them are made in accordance with descriptions contained in letters-patent granted to R. B. Hugunin, July 17th, A. D. 1866; R. B. Hugunin, March 6th, A. D. 1866; R. B. Hugunin, March 10th, 1868, under which letters-patent they are fully licensed; and that such machines consist of a pair of rollers covered with an elastic material, connected by gearing, driven by a crank,

30 all solidly set in wood-work, and so compact as to render it easily attachable to a bench, a tub, or any other convenient object, without the intervention of a yoke.

And these defendants admit that they are making and selling in the market large numbers of wringing-machines; that they have been applied to by the complainants to desist, or take license from the complainants and certain other parties, to wit: The Bailey Washing and Wringing-Machine Company, whom these defendants charge as confederating together to make these defendants acknowledge this and certain other pretended patents for inventions as good claims, and that they have brought against these defendants, with others, a large number of vexatious suits for the purpose of harassing and annoying these defendants, much to the temporary benefit of the complainants, as these defendants believe; for by these suits the public have been and are detained from purchasing the wringing-machines manufactured by these defendants for fear of rendering themselves liable to prosecution for using the same.

And these defendants, further answering, deny that the trade and public generally have acquiesced in the right of the complainants to the exclusive right to manufacture wringing-machines attached to one side of the tub.

And these defendants, further answering, deny all and all manner of unlawful combination and confederacy wherewith they are by said bill charged. Without this that there is any other matter, cause, or thing in said complainant's bill of complaint contained material or necessary for these defendants to make answer unto, and not herein or hereby well and sufficiently answered, confessed, traversed, and avoided, or denied, is true to the knowledge or belief of these defendants. All which matters and things these defendants are ready and willing to aver, maintain, and prove as the honorable court shall direct, and humbly pray to be hence dismissed with their reasonable costs, in this behalf most wrongfully sustained.

PROVIDENCE TOOL CO.
JOHN B. ANTHONY, *Treasurer.*

31 DISTRICT OF RHODE ISLAND, *ss:*

Personally appeared the within-named John B. Anthony, treasurer, and made oath that the facts and statements contained in the within answer by him subscribed, as stated of his own knowledge, are true, and those stated on information and belief, he believes to be true.

Before me.

HENRY PITMAN,
Clerk U. S. Circuit Court.

Amendment to defendant's answer. *Filed Feb.* 7, 1870.

An amendment of paragraph 8 of the defendant's answer in the above-entitled cause by adding the following:

And also the letters-patent of H. W. Sabin, granted by the Government of the United States, August 16 A. D. 1845; in letters-patent of the United States, granted December 15, A. D. 1846, to E. D. Wilson; in letters patent of the United States, granted June 24, A. D. 1856, to V. R. Stewart; in letters-patent of the United States, granted August 12, A. D. 1856, to R. P. Bradley, which said letters-patent these defendants crave leave to refer to at the hearing.

PROVIDENCE TOOL CO.
JOHN B. ANTHONY, *Treasurer.*

Subscribed and sworn to, this 12th day of February, 1870, before me.

HENRY PITMAN,
Clerk U. S. Circuit Court.

32 *Amendment to answer of defendant.*

METROPOLITAN WASHING-MACHINE COMPANY
vs.
PROVIDENCE TOOL COMPANY.

To the above-named complainant:

Please take notice that at the hearing of the above-entitled suit, the defendants will, in addition to the several patents referred to & set forth in their answer, refer by way of defence to the French patent, granted

au sieur Desharges en date d 16, juin 1855, en date 13 octobre 1856, which is contained in the bound volumes of the library of the Patent-Office of the United States of French letters-patent, & to a translation thereof.

BENJ. F. THURSTON,
For Def'ts.

33 *Agreement.*

It is agreed that the notice given by the defendant corporation that they will refer to the French patent of Desharges en date du 16 Juin 1855, et en date du 13 octobre 1856, contained in the bound volumes of the Patent-Office of the United States, French letters-patent, and to a translation thereof, shall be considered sufficient for the purpose of putting Desharges' French patent into the case without any formal amendment to the answer, but without any waiver of any objection to the pertinence, materiality, or relevance of the same.

JAMES H. PARSONS,
For Compl'ts Corporation.

34 *Replication. Filed March* 21, 1870.

The replication of the Metropolitan Washing-Machine Company to the answer of the Providence Tool Company.

These repliants, saving and reserving unto themselves all advantage of exception to the manifold insufficiencies of the said answer, for replication thereto, say that they will aver & prove their said bill to be true, certain, and sufficient in law to be answered unto, and that the said answer of said defendants is uncertain, untrue, & insufficient to be replied unto by this repliant. Without this, that there is any other matter or thing in said answer contained, material or effectual in law to be replied unto, confessed, & avoided, traversed, or denied, is true. All which matters & things these repliants are, & will be ready to aver & prove, as this honorable court shall direct, & humbly prays as in their bill they have already prayed.

By their solicitor.

JAMES H. PARSONS.

35 The United States Patent-Office to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the files of this office, of the file contents and drawings in the matter of the letters-patent granted Isaac A. Sergeant, July 27th, 1858, No. 21029, for "improvements in clothes-wringers."

In testimony whereof, I Samuel S. Fisher, Commissioner of Patents, have caused the seal of the Patent-Office to be hereunto affixed, this eighteenth day of September, in the year of our Lord one thousand eight hundred and sixty-nine, and of the Independence of the United States the ninety-fourth.

{ PATENT-OFFICE, UNITED STATES, } SAMUEL S. FISHER,
{ OF AMERICA. SEAL. } *Commissioner.*

36 To all whom it may concern:

Be it known, that I, Isaac A. Sergeant, of Springfield, Clark County, Ohio, have invented new and useful improvements in clothes-

wringers, and I hereby declare the following to be a full and exact description of the same, reference being had to the accompaning drawings, making part of this specification.

This invention consists of an apparatus which is readily attachable to a common wash-tub, and is specially adapted to facilitate the wringing of large articles of clothing, &c.

In the accompanying drawings, fig. 1 is a rear perspective view of the machine, as in operation.

Fig. 2 is a front perspective view with the rotary clamp elevated, and the hitching arm partially so.

Figs. 3 and 4 are respectively a horizontal and a vertical section through the part by which the apparatus is attached to the tub.

A represents a common wash-tub. B is a yoke whose inner margin is of U-form. From the lower end of the yoke B project two jaws, (C C) the latter of which contains within a dovetail groove a wedge or key D, whose exposed side is made slightly concave, as shown. The office of the above-described jaws and wedge is to hold the apparatus in position on the side of the tub, in reference to which service I term them collectively the "vise." H is a ring fitting the yoke B, and confined therein against lateral displacement by flanges *h* *h*[1]. I and J are a pair of jaws, the former of which is attached rigidly in front of the ring H, and is furnished on its upper edge with two ridges or lips *i* *i*. The jaw J is hinged at *j* to the ring H, and is so formed on its lower edge as to fit between the lips *i* *i*, in conjunction with which it holds the clothes tightly without danger of tearing. A latch K, hinged at *k*, forms a guide for the jaw J, or holds it firmly and instantly in any de-
37 sired position by being forced behind a wedge-shaped hook L. M is a spring which retracts the latch K when liberated, such retraction being limited by a projection N, on the jaw J. P is a pawl, which, in conjunction with notches arranged at intervals around the ring H, prevents the retrograde motion of the latter, and, in conjunction with a dog O, holds it down within the yoke. E is an arm or frame nearly equal in length to the diameter of a small wash-tub, and extending horizontally from the lower part of the yoke B, to either side of which it is so hinged (*c*) as to admit of its being turned up to a vertical position, (as shown partially in fig. 2,) at the same time that it is held against depression by shoulders *f*. F is a hitching-pin or knob, rising vertically from the end of the arm E. G is a ledge to assist in holding the clothes around the pin F, as hereafter explained.

The operation is as follows:

The apparatus being attached to the side of the wash-tub as represented in the drawings, and the clamp H I J K L confined within the yoke B, one end of a garment is passed through the ring H, and the jaw J being closed down upon it, the latch K is placed behind the hook L, (as shown in red in figure 1,) so as to secure the parts in position. The other portion of the garment is then bent around the hitching-pin F and held fast with the left hand, the thumb resting against the ledge G, and the clamp is rotated with the right hand in the direction of the arrow until the portion of the garment between the clamp and the hitching-pin is sufficiently wrung out. The jaw J being then released and elevated, the wrung portion is drawn through the clamp into a basket, and another hitch being taken the succeeding portions are treated in like manner.

This arrangement affords great facility for successfully rinsing and wringing out the clothes from several waters in as many tubs, the wringer being readily changed from tub to tub.

38 When it is desired to have free access to the tub, the arm E is folded up compactly against the clamp, so as to be entirely out of the way, by which means the operation of washing or rinsing and wringing may succeed each other without trouble or delay. Either the rotary clamp or the whole apparatus may be instantly detached for the purpose of cleansing parts where dirt is apt to lodge, a common necessity to avoid soiling the next batch, after dealing with the colored or much-soiled garments.

It will be seen that the duty of the "vise" C C¹ D is merely to support the wringer, and neither it nor the tub is required to sustain any part of the severe tensional strain produced in wringing, such strain occurring almost wholly in the direction of the hitching-arm E, which arm is held down with more or less force or instantly released if need be, to "humor the work," or graduate the stress on the clothing, as may be desired.

Wringers may be constructed by wholesale on this plan at a very moderate cost, and admit of packing for transportation with as great facility as the common washboard.

I claim as new of my invention herein:

1st. The described arrangement and combination of the yoke B and ring H, operating substantially in the manner and for the purpose set forth.

2d. In connection with the above, I claim the arrangement and combination of the pawl P and dog O, performing the double office of retaining the ring H within the yoke and preventing its retrograde motion.

3d. The construction and arrangement of the jaws I J, latch K and hook L, operating as explained in combination with the ring H.

4th. The hinged hitching-arm E operating substantially in the manner set forth.

39 5th. In this connection I claim the "vise" C C¹ D for the purpose specified.

In testimony of which invention I hereunto set my hand.

ISAAC A. SERGEANT.

Attest:

GEO. H. KNIGHT.
C. STEEMER.

STATE OF OHIO, *Hamilton County, ss:*

On this 30th day of March, 1858, before the subscriber, a notary public in and for said county, personally appeared the within-named Isaac A. Sergeant, and made solemn oath that he verily believes himself to be the original and first inventor of the herein-described clothes-wringer, and that he does not know or believe the same was ever before known or used, and that he is a citizen of the United States.

[NOTARIAL SEAL.] GEO. H. KNIGHT, *Notary Public.*

(Endorsed:) "Rec'd and filed April 20, '58. E. G. G."

APRIL 24, 1858.

ISAAC A. SERGEANT,

(Care Geo. H. Knight & Bro., Washington, D. C.)

Clothes-wringer rejected. For the same invention see patent to
40 John McLaughlin, 16th October, 1855. The use of hinges, screws,

wedges, or other mechanical devices as substituted for each other is not regarded as sufficient ground for issue of letters-patent. For the employment of hinge, as claimed in similar machines, see patent to C. N. Tyler for washing-machine, October 21, 1856.

FOREMAN.

(Endorsed:) "Brief—April 24, '58."

WASHINGTON, *May* 4, 1858.

Hon. J. HOLT,
Commissioner of Patents.

SIR: After a careful consideration of your favor of 24th ultimo, rejecting the application of I. A. Sergeant for letters-patent on alleged improvements in clothes-wringers, we were desirous of amending the same in conformity with the requirements of the office, but found ourselves unable to do so without some additional information. The law requires that, in rejecting an application, the office shall give the applicant "such information and references as may be useful in judging of the propriety of renewing his application, or of altering his specification to embrace only that part of the invention or discovery which is new." Act 1836, sec. 7.

In view of the above, and of the fact that amendments are not usually allowed after a formal consideration, we would respectfully request information as to the objections of the office to the points covered by the 1st, 2d, 4th, and 5th claims, to which no analogy is found in either of the references. The objects and advantages of these features are fully set forth in the specification, but may be briefly stated as follows: Ready
41 detachability of the clamp from its bearing or yoke for cleansing, &c., and of the whole apparatus from the tub for the same purpose or for removal from tub to tub. Compact and efficient device for both holding the ring within the yoke and preventing its retrogression. Hinged hitching arm, operating (in connection with the clamp) to modify the strain on the clothes. The third claim (in specification) is regarded as of less importance, although novelty of construction is believed to exist in the clamp jaws.

Mr. Sergeant's renewal of oath has not yet reached us, and, from the statement in the third paragraph of the official circular of August 12, 1844, it is presumed the rules of the office do not require it at this stage.

We are, very respectfully, your obedient servants,

GEO. H. KNIGHT & BRO.,
Attorneys.

MAY 6, 1858.

ISAAC A. SERGEANT,
(Care of Geo. H. Knight & Bro., Washington, D. C.)

Your letter of the 4th inst. is received. In reply we have to state that a full reply to your inquiries would involve a second examination of the case, which would be contrary to rule, previous to renewal of the oath of invention.

FOREMAN.

(Endorsed:) "Brief—May 6, '58."

I solemnly swear that I still believe myself the original and
42 first inventor of the improvements in clothes-wringers rejected April 24, 1858.

ISAAC A. SERGEANT.

Sworn to and subscribed before me at Cincinnati, this 3d day of May, 1858.

GEO. H. KNIGHT,
Notary Public in and for Hamilton Co., Ohio.

(Endorsed:) "Renewed oath, filed July 10, '58."

WASHINGTON, *9th July*, 1858.

Hon. J. HOLT,
Commissioner of Patents.

SIR: The application of Isaac A. Sergeant for letters-patent on improvements in clothes-wringers is respectfully presented for reconsideration, amended by substituting the following for the claims first patented.

"1st. The yoke B, provided with a suitable hitching-arm, the said yoke being adapted to be temporarily attached to a wash-tub or readily disconnected therefrom, as explained, and employed as a bearing for a rotary clamp for wringing clothes.

"2d. In the described connection with the yoke B, I claim the movable clamp H I J K, and pawl and dog P O, by means of which the said clamp is retained within the yoke, or may be readily removed therefrom at will, to be cleansed or dried.

"3d. In the described connection with a rotary clamp for wringing clothes, I claim the hinged and yielding hitching-arm E, for the purpose explained."

43 This case was rejected on the patents of John McLaughlin, 16th October, 1855, and C. N. Tyler, 21st October, 1856. McLaughlin's machine being used to some extent in the West, we have been enabled (since the rejection of Mr. Sergeant's application) to compare them as made. Sergeant's object is to furnish a machine which is adapted to be used on a common wash-tub, and moved from tub to tub in order to wring clothes out of a number of successive waters, which is a common requirement in washing. McLaughlin's machine is to be found only permanently attached to a washing-machine, and is therefore incapable of such use. Neither the invention nor any means of so employing it is exhibited in either his model, drawing, or specification. He places his hitching-pin on the opposite side of the tub, entirely independent of the wringer and hence the necessity for his wringer being permanently attached to the tub in order to resist the strain to which it is subjected in wringing.

The detachability of the clamp from the yoke is useful to enable it to be cleansed during use and also dried after use, so as to prevent the injurious effects of water lodging between the working parts.

In relation to the hinged hitching-arm we have been unable to find the equivalent thereof in the patent of C. A. Tyler. His washing apparatus is so hinged as to admit of its being turned up to afford access to the interior of the tub, and his wringer is so arranged as to relieve the tub from the severity of the strain. We claimed neither of these features, but the described hinged hitching-arm, affording a yielding attachment for the garment, easily regulated by the hand of the operator.

Practical use has proved this feature to be of value, and it is believed to be new.

We are, very respectfully, your obedient servants,

G. H. KNIGHT & BRO.,
Attorneys.

(Endorsed:) "Amendment A, filed July 10, '58."

44 The United States Patent-Office to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the files of this office, of the file, contents, and drawing in the matter of the re-issued letters-patent granted Sylvanus Walker, dated June 18, 1867, No. 2652, "Improvement in clothes-wringers."

In testimony whereof I, Samuel S. Fisher, commissioner of patents, have caused the seal of the patent-office to be hereunto affixed, this eighteenth day of September, in the year of our Lord one thousand eight hundred and sixty-nine, and of the Independence of the United States the ninety-fourth.

{ PATENT-OFFICE, UNITED STATES OF AMERICA. SEAL. } SAMUEL S. FISHER, *Commissioner.*

45 To all whom it may concern:

Be it known that Isaac A. Sergeant, of Springfield, in the county of Clark and State of Ohio, invented certain new and useful improvements in clothes-wringers, and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which figure 1 is a rear perspective view of the machine as in operation; figures 2 and 3 are respectively a horizontal and vertical section through the part by which the machine is attached to the tub.

This invention consists of a machine which is readily attached to a common wash-tub, and is specially adapted to facilitate the wringing of clothes.

To enable others skilled in the art to understand the invention, the following is a description of the manner in which it is carried out—describing briefly the clamping device by which it is attached to the wash-tub in general terms, which will form the subject of another application for letters-patent of even date with this—and then more particularly the machine for wringing the clothes and expelling the water from them, which forms the subject of the present invention.

The wringing-machine of which this invention forms a part, as represented in the accompanying drawings, consists of a yoke B, whose inner margin is of U-form. From the lower end of the yoke B project two jaws C C^1, the latter of which contains within a dovetail groove a wedge or key D, whose exposed side is made slightly concave, as shown in figure 2. The office of the above-described jaws and wedge is to hold the machine in position on the side of the tub A, in reference to which service they are termed collectively the "vice;" H is a ring fitting the yoke B, and confined therein against lateral displacement by flanges *h* h^1. I and J are a pair of jaws, the former of which is
46 attached rigidly in front of the ring H, and is furnished on its upper edge with two ridges or lips *i* i^1. The jaw J is hinged at *j* to the ring H, and is so formed on its lower edge as to fit between the lips *i* i^1, in conjunction with which it holds the clothes tightly, without danger of tearing. A latch K, hinged at *k*, forms a guide for the jaw J, or holds it firmly and instantly in any desired position by being forced behind a wedge-shaped hook I. M is a spring which retracts the latch K when liberated, such retraction being limited by a projection N on the jaw J. P is a pawl which, in conjunction with the notches arranged at intervals around the ring H, prevents the retrograde motion of the latter, and, in conjunction with a dog O, holds it down within the yoke. E is an arm or frame nearly equal in length to the diameter of

a small wash-tub, and extending horizontally from the lower part of the yoke B, to either side of which it is so hinged (*e*) as to admit of being turned up to a vertical position at the same time that it is held against depression by shoulders *f*. F is a hitching-pin or knob rising vertically from the end of the arm E. G is a ledge to assist in holding the clothes around the pin F, as hereafter explained. The operation is as follows:

The machine being attached to the side of the wash-tub, as represented in the drawings, and the clamp H I J K L confined within the yoke B, one end of a garment is passed through the ring H, and the jaw J being closed down upon it, the latch K is placed behind the hook L, (as shown in red in figure 1,) so as to secure the parts in position. The other portion of the garment is then bent around the hitching-pin F and held fast with the left hand, the thumb resting against the ledge G, and the clamp is rotated with the right hand in the direction of the arrow until the portion of the garment between the clamp and the hitching-pin is sufficiently wrung out. The jaw J being then released and elevated, the wrung portion is drawn through the clamp into a basket, and another hitch being taken, the succeeding portions are
47 treated in like manner. This affords great facility for successively rinsing and wringing out the clothes from several waters in as many tubs, the wringer being readily changed from tub to tub. When it is desired to have free access to the tub, the arm E is folded up compactly against the clamp, so as to be entirely out of the way, by which means the operation' of washing or rinsing and wringing may succeed each other without trouble or delay. Either the rotary clamp or the whole machine may be instantly attached for the purpose of cleaning parts where dirt is apt to lodge, a common necessity to avoid soiling the next batch, after dealing with colored or much-soiled garments. It will be seen it is the object of the "vice" C C^1 D to support the wringer in position, and neither it nor the tub is required to sustain any part of the severe tensional strain produced in wringing, such strain occurring almost wholly in the direction of the hitching-arm E, which arm is held down with more or less force, or instantly released if need be, to "humor the work" or graduate the stress on the clothing as may be desired.

What is claimed as new and of this invention herein:

1st. The yoke B provided with a suitable hitching-arm, the said yoke being adapted to be temporarily attached to a wash-tub or readily disconnected therefrom as explained, and employed as a bearing for a rotary clamp for wringing clothes.

2d. In the described connection with the yoke B the movable clamp H I J K L and pawl and dog P O, by means of which the said clamp is retained within the yoke, or may be readily removed therefrom at will
to be cleansed or dried.

48 3d. In the described connection with a rotary clamp for wringing clothes. The hinged and yielding hitching-arm E for the purposes explained.

ANN JANE SERGEANT,
Administratrix.

Witnesses:
ARTHUR E. UNDERWOOD,
THOS. D. MITCHELL.

[Internal revenue stamp, five cents cancelled.]

COUNTY OF MONTGOMERY, *State of Ohio, ss:*

On this 22d day of February, 1867, before me, the subscriber, a justice of the peace, personally appeared the above-named Ann Jane Sergeant, and made solemn oath that she verily believes that by reason of an insufficient or defective specification, the aforesaid patent is not fully valid and available to her, and that the said error has arisen from inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, to the best of her knowledge or belief.

[SEAL.] THOS. D. MITCHELL, *J. P.*

To the COMMISSIONER OF PATENTS:

The petition of Ann Jane Sergeant, of Dayton, in the county of Montgomery and State of Ohio, respectfully represents:

49 That Isaac A. Sergeant, of Springfield, in the county of Clark and State of Ohio, did obtain letters-patent of the United States for an improvement in clothes-wringers, which letters-patent are dated on the 27th day of July, 1858; that the said Isaac A. Sergeant departed this life on the 28th day of July, 1859; and that your petitioner has been duly appointed his administratrix; and your petitioner now believes that the said letters-patent are inoperative and invalid by reason of a defective specification, which defect has arisen from inadvertence and mistake. She, therefore, prays that she may be allowed to surrender the same, and requests that new letters-patent may issue to her for the same invention for the residue of the period for which the original patent was granted under the amended specification herewith presented, she having paid thirty dollars into the Treasury of the United States, agreeably to the act of Congress in that case made and provided.

ANN JANE SERGEANT,
Administratrix.

(Endorsed:) "Patent Office, March 2, 1867."

53 SPRING STREET, NEWARK, N. J., *March* 8, 1867.

Hon. COMMISSIONER OF PATENTS:

Inclosed please find certified copy of letters of administration issued to Ann Jane Sergeant, as the administratrix of the estate of
50 Isaac A. Sergeant, together with papers returned for informality; said copy was omitted through mistake.

Respectfully, yours,

SYLVANUS WALKER.

Hon. T. C. THEAKER,
Commissioner of Patents, Washington, D. C.

(Endorsed:) "Patent Office, March 3, 1857."

Administrator's letters.

STATE OF OHIO, *Clark County, ss:*

To all who shall see these presents, greeting:

Be it known, that by the court of probate of said county administration of all and singular the goods, chattels, rights, credits, and estate, which were of Isaac A. Sergeant, late of said county, deceased, has been granted unto Ann Jane Sergeant, whose duty it shall be to have

all and singular the said goods, chattels, rights, and credits appraised by, and to return upon oath within three months a true inventory thereof, also of the moneys belonging to the said decedent at the time of death, to administer according to law all the said moneys, goods, chattels, rights, and credits, and also the proceeds of the real estate of said decedent which may be sold for the payment of his debts, which shall at any time come into the possession of said administratrix or of any person for her, to render upon oath a true account of her administration within eighteen months, and at any other times when required by the court of law; and to pay any balance remaining in her hands upon settlement of her accounts to such persons as the court or the law shall direct.

51 Witness John H. Sittler, judge of the court at Springfield, this ninth day of February, A. D. eighteen hundred and sixty seven.

{ PROBATE COURT OF CLARK COUNTY, OHIO, SEAL. }

JOHN H. SITTLER,
Judge of Probate.

Court of probate.

STATE OF OHIO, *Clark County, ss:*

I, John H. Sittler, judge of said court, do hereby certify that the within is a true and correct copy of the letters of administration issued to Ann Jane Sergeant, administratrix of the estate of Isaac A. Sergeant.

In witness, my hand and seal of said court, this 9th day of February, A. D. 1867.

{ PROBATE COURT OF CLARK COUNTY, OHIO, SEAL. }

JOHN H. SITTLER.
Probate Judge.

(Endorsed:) "Patent-Office, March 11, 1867."

59 EAST CHESTER PARK,
Boston, Mass., May 18, 1867.

HON. COMMISSIONER OF PATENTS:

Yours of 16th is received, in reply to mine 10th inst., inquiring how soon the application of Ann Jane Sergeant for re-issue would be reached.

52 Yours informs me "a letter was addressed to me at Newark, N. J., March 7, 1867, calling for certificate of clerk of court that Ann Jane Sergeant had been granted letters of administration on Isaac A. Sergeant's estate, to complete the two re-issue applications pending." The letter above referred to was received by me at Newark, March 8, 1867, and the same day, March 8, 1867, a certified copy by the judge of the court of letters of administration granted to Mrs. Ann Jane Sergeant, as administratrix of the estate of Isaac A. Sergeant, deceased, was sent to your address, together with the two applications for re-issue returned to me on March 7, 1867; also a letter informing you of the mistake of not sending the certified copy with the two applications. I think they must have been received, as I deposited them in the post-office myself; Mr. Abraham Moore, J. C. Tasker, E. Bebb, or L. Dean will inform you that my applications heretofore have been filed wrong, and delayed months, by mistakes of the office, to my great injury.

Respectfully, &c.

SYLVANUS WALKER.

(Endorsed:) "Patent-Office, March 21, 1867."

53 United States Patent-Office to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the files of this office of the file contents and drawings in the matter of the re-issued letters-patent granted Sylvanus Walker, December 31, 1867, No. 2829, for "improved clothes-wringer."

In testimony whereof I, Samuel S. Fisher, Commissioner of Patents, have caused the seal of the Patent-Office to be hereunto affixed, this eighteenth day of September, in the year of our Lord one thousand eight hundred and sixty-nine, and of the Independence of the United States the ninety-fourth.

{ PATENT OFFICE UNITED STATES OF AMERICA, SEAL. }

SAMUEL S. FISHER,
Commissioner.

54 To all whom it may concern:

Be it known that Isaac A. Sergeant, of Springfield, in the county of Clark, and State of Ohio, invented certain new and useful improvements in clothes-wringers, and hereby declares the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Fig. 1 is a front perspective view of the machine as attached to a wash-tub, with the rotary clamp elevated, and the hitching-arm partially so.

Fig. 2 is a horizontal section through the clamp by which the machine is attached to the tub.

Fig. 3 is a vertical section through the same device.

The first part of this invention consists of a machine which is readily attached to a common wash-tub, and is especially adapted to wringing clothes.

The second part of this invention consists in the employment of a pair of jaws, between which the side of the tub is clamped for the purpose of attaching the machine temporarily to a wash-tub in a firm and expeditious manner, which greatly accelerates the operations of washing, rinsing, and wringing, as will be more particularly described and set forth.

To enable others skilled in the art to understand the invention, a description of the manner in which it is carried out is hereafter more fully given.

In the drawings annexed A represents a common wash-tub; B is a yoke whose inner margin is of U-form; from the lower end of the yoke B project two jaws C C^1, the latter of which contains within a dovetail groove a wedge or key D, whose exposed side is made slightly concave, as shown in fig. 2. The office of the above-described jaws and
55 wedge is to hold the machine in position on the side of the tub, in reference to which service they are termed collectively the "vise." Hereinafter describing briefly the general features of the wringing-machine, which will form the subject of another application for letters-patent of even date with this, and then more particularly the clamping device by which the wringer is attached to the wash-tub, which forms the subject of the present invention.

The wringing-machine of which this invention forms a part, as represented in the accompanying drawings, consists of a ring H fitting the yoke B, and confined therein against lateral displacement by flanges $h\,h^1$. I and J are a pair of jaws, the former of which is attached

rigidly in front of the ring H, and is furnished on its upper edge with two ridges or lips *i i*[1]. The jaw J is hinged at *j* to the ring H, and is so formed on its lower edge as to fit between the lips *i i*, in conjunction with which it holds the clothes tightly without danger of tearing. A latch K, hinged at *k*, forms a guide for the jaw J, or holds it firmly and instantly in any desired position by being forced behind a wedge-shaped hook L. M is a spring which retracts the latch K when liberated, such retraction being limited by a projection N on the jaw J. P is a pawl, which, in conjunction with notches arranged at intervals around the ring H, prevents the retrograde motion of the latter, and, in conjunction with a dog O, holds it down with the yoke. E is an arm or frame nearly equal in length to the diameter of a small wash-tub, and extending horizontally from the lower part of the yoke B, to either side of which it is so hinged as to admit of being turned up. F is a hitching-pin rising vertically from the end of the arm E. G is a ledge to assist in holding the clothes around the pins F.

The machine being attached to the side of a wash-tub, as represented in the drawings, and the clamp H I J K L confined within the yoke B, one end of a garment is passed through the ring H, and the
56 jaw J being closed down upon it, the latch K is placed behind the hook L, so as to secure the parts in position. The other portion of the garment is then bent around the hitching-pin F and held fast with the left hand, the thumb resting against the ledge G, and the clamp is rotated with the right hand in the direction of the arrow until that portion of the garment between the clamp and hitching-pin is sufficiently wrung out. The jaw J then being released and elevated, the wrung portion is drawn through the clamp into a basket, and another hitch being taken, the succeeding portions are treated in like manner.

This arrangement affords great facility for successively rinsing and wringing out the clothes from several waters in as many tubs, the wringer being easily and readily changed from tub to tub. When it is desired to have free access to the tub, the wringer may be instantly removed therefrom by simply pulling upon the handle of the wedge D, which relieves the pressure of the jaw C from the inside of the wash-tub, thereby allowing the wringer to be instantly detached, and attached to different tubs; by which means the operations of washing or rinsing and wringing may succeed each other without trouble or delay, or the wringer may be instantly detached for the pupose of cleaning its parts where dirt is apt to lodge, a common necessity to avoid soiling the next batch, after dealing with colored or much-soiled garments. It will be seen that it is the object of the "vise" C C D to attach the wringer to the side of a wash-tub in a firm and expeditious manner temporarily, as it can be detached as easily and quickly whenever desired. The clamping device in the machine represented in the accompanying drawings is made to gripe the sides of a wash-tub by means of a wedge or key. It is not, however, limited to this particular mode.

The jaws may be made to gripe the tub by means of a set-screw, or by means of cams, springs, or in any suitable manner; neither
57 is the invention confined to a single set of jaws, or any particular form or size; or whether the wedge or key, cams or eccentrics, set-screws or springs, shall have a bearing directly against the side of the tub, or by acting upon levers or springs, to obtain a firmer gripe upon the side of the tub as may be desired, provided sufficient pressure is brought to bear against the tub to support the wringer in position, when in use, against the power tending to displace it.

Having thus described the invention, what is claimed and desired to be secured by letters-patent is—

1st. The application of a clamping-device to a clothes wringer for the purpose of firmly securing a clothes-wringer to a wash-tub temporarily, as and for the purpose set forth.

2nd. A clamping device which shall gripe the tub with sufficient pressure to sustain a clothes-wringer in position when in use, against the power tending to displace it, substantially in the manner described and for the purposes set forth.

ANN JANE SERGEANT.

Witnesses:
ARTHUR E. UNDERWOOD.
THOS. D. MITCHELL.

[Five-cents internal-revenue stamp. J. D. M. Feb. 22, '67. Int. Exch.]

COUNTY OF MONTGOMERY,
State of Ohio, ss:

On this 22d day of February, 1867, before the subcriber, a
58 justice of the peace, personally appeared the above-named Ann Jane Sergeant, and made solemn oath that she verily believes that by reason of an insufficient or defective specification the aforesaid patent is not fully valid and available to her, and that the said error has arisen from inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, to the best of her knowledge or belief.

THOS. D. MITCHELL, *J. P.* [SEAL.]

To the COMMISSIONER OF PATENTS:

The petition of Ann Jane Sergeant, of Dayton, in the county of Montgomery and State of Ohio, respectfully represents:

That Isaac A. Sergeant, of Springfield, in the county of Clark and State of Ohio, did obtain letters-patent of the United States for improvement of clothes-wringers, which letters-patent are dated on the 27th day of July, 1858; that the said Isaac A. Sergeant departed this life on the 28th day of July, 1859, and that your petitioner has been duly appointed his administratix, and your petitioner now believes that the said letters-patent are inoperative and invalid by reason of a defective specification, which defect has arisen from inadvertence and mistake. She therefore prays that she may be allowed to surrender the same, and requests that new letters-patent may issue to her for the same invention, for the residue of the period for which the original patent was granted, under the amended specification herewith presented, she having paid thirty dollars into the Treasury of the United States, agreeably to the act of Congress in that case made and provided.

ANN JANE SERGEANT.

59 *Power of attorney.*

Know all men by these presents that I, Ann Jane Sergeant, of Dayton, in the county of Montgomery, and State of Ohio, hereby constitute and appoint Sylvanus Walker, of Newark, New Jersey, my attorney to prosecute before the Patent-Office of the United States the accompany-

ing applications for re-issue; to alter or modify the specifications and claims therein as may be necessary, and as he may deem expedient; to receive any letters-patent that may be granted therefor, and to do all things proper and necessary in the premises, with full power of substitution and revocation.

Witness my hand this 22d day of February, 1867.

ANN JANE SERGEANT.

[Inter'l rev., 50 c'ts. A. J S., Feb. 22d, 1867.]

In presence of—
Witnesses:
A. E. UNDERWOOD.
THOMAS D. MITCHELL.

(Endorsed:) "Patent-Office, May 9, 1867."

JUNE 4TH, 1867.

SIR: In the matter of the application of Ann Jane Sergeant for a re-issue (div. 2) of the patent granted to I. A. Sergeant, for a clothes-wringer, on the 27th July, 1858, it is necessary that the specification be amended by erasing the portion marked in pencil on page 5, as
60 other wringers have some of the means named for securing them to a tub. You are referred to the applications of J. P. Martin, rejected Feb. 17th, 1852, and W. W. Reid, rejected Feb. 27th, 1857.

FALES.

SYLVANUS J. WALKER,
53 Spring Street, Newark, N. J.

(Endorsed:) "Brief, div. 2. Ann Jane Sergeant. Speci. ret'd June 4, 1867."

59 EAST CHESTER PARK,
Boston, Mass., June 4th, 1867.

Hon. T. C. THEAKER,
Commissioner of Patents.

RESPECTED SIR: I beg leave to call your attention to the application of Ann Jane Sergeant for re-issue in two divisions of clothes-wringer patent of Isaac A. Sergeant, dated July 27th, 1858. The applications were made in due form March, 8th, 1867, but its receipt was not acknowledged until May 20th. By mistake it has been delayed more than two months. On that account, I have to request that it be examined immediately, and if allowed, it be antedated back to the time it would have reached if it had come up in its order. Please also observe the assignment of the entire patent to Sylvanus Walker, with the request that it be re-issued to me as assignee of Ann Jane Sergeant, administratrix of the estate of Isaac A. Sergeant.

Very respectfully,

SYLVANUS WALKER,
Attorney A. J. Sergeant.

(Endorsed:) "Patent-Office, June 6, 1867."

61 59 EAST CHESTER PARK,
Boston, June 10th, 1867.

Hon. COMMISSIONER OF PATENTS:

Yours of 4th inst. is received, containing part second of specifications for re-issue of application of Ann Jane Sergeant, for improved

clothes-wringer patent granted to Isaac A. Sergeant, July 27th, 1858. In order to strike out the clause indicated, it will be necessary to amend further, by embracing more in this division. This will require some additional letters, indicating that particular part embraced in the division to be added to the drawings belonging to this division. Please direct to my address drawings of div. 2, that I may make the necessary amendment required, and oblige.

Yours, respectfully,

SYLVANUS SERGEANT,
Attorney A. J. Sergeant.

(Endorsed:) "Patent-Office, June 12, 1867."

59 EAST CHESTER PARK,
Boston, Mass., June 22, 1867.

HON. COMMISSIONER OF PATENTS.

SIR: About ten days ago, I requested the drawings of div. No. 2 in the application for re-issue of Ann Jane Sergeant, clothes-wringer, "returned to my address," that I might add two letters, designating an important part of the invention, which were omitted by mistake. I have the specifications to be amended. Please to send the drawings, that I may correct them to correspond with the amended specifications. If they have been sent they have not been received at Boston post-office.

Yours, respectfully,

SYLVANUS WALKER.

(Endorsed:) "Patent-Office, June 24, 1867."

62 DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT-OFFICE,
Washington, Sept. 25th, 1867.

SIR: Agreeably to your request, the drawing of your application for letters-patent is herewith returned.

Yours, respectfully,

_____ _____,
Commissioner of Patents.

SYLVANUS WALKER,
Newark, N. J.

(Endorsed:) "To Sylvanus Walker. Specification and drawing returned to applicant, by request, Sept. 25, 1867."

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT-OFFICE,
Washington, Sept. 25th, 1867.

SIR: Agreeably to your request, the drawings of your application for letters-patent is herewith returned.

Yours, respectfully,

J. T. FALES, *Examiner.*

SYLVANUS WALKER,
Newark, New Jersey.

(Endorsed:) "Specification and drawing returned to applicant, by request. Patent-Office, Sept. 30, 1867."

63 To the COMMISSIONER OF PATENTS:

Through inadvertence and mistake on the part, in preparing specifications and drawings for re-issue of part 2d of patent granted Isaac A. Sergeant, of Springfield, county of Clark and State of Ohio, for clothes-wringer patented July 27th, 1858, which specifications and drawings were filed in the Patent-Office, March 9th, 1867, by Ann Jane Sergeant, administratrix, by Sylvanus Walker, of Newark, N. J., her attorney and assignee, and were returned to me June 4th, 1867, for amendment, I hereby respectfully request to be allowed to amend said specifications by rewriting anew, as so many errors occur of words to be stricken out and others inserted, of great importance to make said division operative and effective or valid; also to substitute new drawings, showing more clearly the invention.

Yours, respectfully,

SYLVANUS WALKER,
Attorney and Assignee, Boston, Mass.

Hon. COMMISSIONER OF PATENTS:

SIR: In the matter of the application of Ann Jane Sergeant for the re-issue div. 2 of the patent granted I. A. Sergeant for a clothes-wringer on the 27th of July, 1858, as to the references given June 4th, 1867, the applications of J. P. Martin rejected February 17th, 1852, and W. W. Reid rejected February 27th, 1857, and account of the application of Henry Pace, senior, rejected June 7th, 1848.

64 "P. O., February 17th, 1852. Sir: Your application for letters-patent for an alleged improvement in machines for wringing clothes, having been duly examined, is not found to present any patentable novelty. The device of the ratchet-wheel and pawl for maintaining the twist of the clothes is found in the wringing-machine of Henry Pace, senior, rejected June 7th, 1848. J. P. Martin, Philadelphia, Pa." "United States Patent-Office, February 27th, 1857. Sir: Your application for patent for alleged improvement in wringing-machines is not found, on examination, to present any patentable novelty, in view of the application of Henry Pace for a like machine, rejected June 7th, 1848. W. W. Reid, Rochester, N. Y." "P. O., June 7th, 1848. Sir: Your application for a patent for an alleged improvement in wringing-machines has been examined and rejected for want of novelty. A patent was granted to Isaac S. Wright, July 18th, 1832, for a wringing-machine similar to yours. Henry Pace, senior, Cincinnati, Ohio." "P. O., October 28th, 1850. Sir: Upon reconsideration of your claims to a wringing-machine, the office is still of the opinion that the same presents nothing of a patentable character. The same result would follow if the bag or bags were twisted or turned at one end only, as with both ends turned, and with less expense and complication of machinery. This same view of the case was entertained upon the original decision on your claims, although not then communicated, as it was not deemed necessary. Henry Pace, senior, Cincinnati, Ohio."

In the foregoing applications referred to as having some of the means named for securing wringers (in or to) a tub, I am unable to find any of the methods in div. 2 of re-issue of I. A. Sergeant as amended, to conflict, as all of the applications both by model and drawings show the bag as attached to the opposite sides of the box or vessel for receiving the water; therefore the box is included as a part of the device, as the wringer could not be readily attached to boxes of any other dia-

65 meter, and the entire strain would come upon the box or recep-

tacle to which it was attached, while in the invention of Sergeant it is distinctly stated and most clearly shown that the real essence of his invention consisted in its being adapted to clamp on one side only of a common wash-tub, regardless of its size or diameter, and the tub was consequently relieved from the severe tensile strain, thus producing a new and very important improvement in machines for wringing-clothes; being wholly supported upon one side of a common wash-tub its diameter matters not, as it is instantly attached to the tub at one side, and as readily detached and attached to other tubs of various diameters, as wash-tubs which are used for washing purposes always are. The clamping device composed of the jaws C C^1 and wedge or key D, and termed a "vise," comprehends any convenient means known for producing a gripe or pressure as a "vise" to hold the frame for containing the wringing-mechanism in position on the side of the tub; thus a wedge or key, a spring, or a cam, or a set-screw, when applied to the jaws so as to cause them to act upon the side of the tub, would have the same result, namely, to hold the wringer temporarily in position on one side of a common wash-tub. Consequently in this application for re-issue, according to the rules and usages of the Patent-Office, we are entitled to claim and say the same in regard to the invention as might have been claimed and said in the original application, in order to clearly set forth the nature, object, and advantages, and claims, so as to make the invention operative and valid, to all intents and purposes, as the same could have been when originally applied for.

DECISIONS—1st. "Upon an application for re-issue the applicant is not necessarily confined to the original record, i. e., the patent and specification, but the original model may be referred to as evidence of the then invention." Wilson vs. Singer, MS., (App. Cas.,)
66 Dunlop, J., D. C., 1860; Ball, ex parte, MS., (App. Cas.,) and Dietz, ex parte, MS., (App. Cas.,) Morsell, J., D. C., 1860.

2d. "Although a patentee does not expressly claim equivalents, he is understood to embrace them, and in contemplation does embrace them." Byam vs. Farr, 1 Curt., 263, Curtis, J., Mass., 1852.

Yours, respectfully,

SYLVANUS WALKER,
Attorney and Assignee, Boston, Mass.

(Endorsed:) "Patent-Office, Nov. 15, 1867."

Div. 2.

To all whom it may concern:

Be it known that Isaac A. Sergeant, of Springfield, in the county of Clark and State of Ohio, invented certain new and useful improvements in clothes-wringers, and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form part of this specification, in which the marks of reference correspond in all the figures.

Fig. 1 is a front perspective view of the frame for supporting the wringing-mechanism of the machine, as attached to one side of the wash-tub by means of a clamping device.

Fig. 2 is a horizontal section through the clamping device, by which the frame of the machine is attached to one side of a wash-tub.

67 Fig. 3 is a vertical section through the same device.

The first part of this invention consists of a machine which is readily attached to one side of a common wash-tub, and is specially adapted to wringing clothes.

The second part of this invention consists in the employment of a portable frame for supporting the wringing mechanism upon one side of a common wash-tub, by means of a clamping device, which shall gripe the side of a tub for the purpose of attaching and sustaining temporarily the entire wringing mechanism of the machine to one side of a common wash-tub in a firm and expeditious manner, regardless of the size or diameter of the tub, which greatly accelerates the operations of washing, rinsing, and wringing, as will be hereafter more fully set forth and described.

To enable others to understand and construct the invention, a description of the manner in which it is carried out is hereafter more fully given. In the drawings annexed, A represents a common wash-tub; B is a yoke whose inner margin is of U form, the sides of which extend upwards, forming uprights S S; from the lower end of the yoke B extend two jaws C C^1, the latter of which contains within a dove-tail groove a wedge or key D, whose exposed side is made slightly concave, as shown in fig. 2. The office of the above-described jaws and wedge is to hold the frame composed of yoke B, with the uprights S S, for supporting the wringing mechanism of the machine in position on one side of a common wash-tub in a permanent manner, temporarily, regardless of the diameter of the tub, in reference to which service they are termed collectively the "vise." This arrangement affords great facility for successively rinsing and wringing out the clothes from several waters in as many tubs, the wringer being readily changed from tub to tub.

Omitting to describe the general features of the wringing mechanism of the machine, which will form the subject of another application for letters-patent of even date with this, and then more particularly the frame for supporting the wringing mechanism in position, and the clamping devise, by which the frame for holding the wringing mechanism is attached to one side of a common wash-tub, which forms the subject of the present invention.

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The wringing machine of which this invention forms an important part, as represented in the drawings as attached to one side of a common wash-tub, consists of a frame or yoke B, having two uprights S S^1, from the lower end of which project two jaws C C^1, which constitute a clamping device, by means of a wedge or key D. Other equivalent devices may be employed in order to attach, in a permanent manner, temporarily, a wringing machine to one side of a common wash-tub, to facilitate the washing, rinsing, or wringing of clothes, as it is as easily detached, by relieving the pressure of the jaws C C^1 from the side or edge of the tub, thus allowing the wringer to be instantly removed from the side of the tub, when it can be as readily and easily attached to other tubs of any diameter. When it is desired to have free access to the tub, the wringer may be instantly removed therefrom, so as to allow the operations of washing, rinsing, and wringing to succeed each other without trouble or delay, or the wringer may be detached instantly for the purpose of cleaning its parts where dirt is apt to lodge, a common necessity, to avoid soiling the next batch, after dealing with much-soiled or colored garments. It will be seen it is the object of the "vise" C C^1 D to attach the frame or yoke B with its uprights S S^1, for supporting the wringing mechanism of the machine, to one side of a wash-tub in a firm and expeditious manner, temporarily, as it can be detached as easily whenever desired. It will be particularly observed that this wringing machine differs very materially from those heretofore constructed in its attachment to one side only of a common wash-

tub, so it can be constructed separate from and independent of a wash-tub in regard to its diameter; and a further distinctive feature consists in the manner of operation, the clothes being admitted to the wringing mechanism of the machine and passed through it as fast as the water is expelled; and they are received at the opposite side of the machine in a basket, piece by piece, as they are wrung out. By this means, articles that are of lighter fabrics, as lace curtains, can be operated upon lightly, as those that are heavy require more force. And another distinctive feature consists of a portable frame for supporting the wringing mechanism, and adapted to be attached temporarily to one side of a common wash-tub, and when so attached acting independent of any other means or object for supporting the wringing mechanism or any other part thereof, and that the method of attachment is such, that it may be attached to tubs of various diameters, and with a thick or thin edge, with the same facility. It is more especially designed to be attached to round tubs, but may be used upon a square box or other receptacle.

It must be obvious to any one that the distinguishing features of this invention consist in its being adapted to the wash-tubs of various diameters; in its clamping device, whereby thick or thin tubs are clamped with the same facility; thus making it a separate and independent device from the wash-tub, box, or other receptacle for receiving the water when expelled from the clothes. All wringers heretofore constructed have been attached to the opposite sides of the box or vessel, consequently said box or vessel must necessarily constitute an important part of the device, as its diameter must correspond to that for which the wringer is adapted; thus the invention overcomes these serious objections by its new and improved attachment.

The clamping device shown in the accompanying drawings, represents the yoke B or frame, with uprights S S^1 for sustaining the wringing mechanism of the machine, as made to gripe one side of the rim of the common wash-tub by the jaws C C^1 passing each side of the rim, and a key or wedge D being forced in, causes the jaw C to press firmly against the inside of the tub at that point, and thereby hold temporarily, in a firm manner, the whole wringing mechanism of the machine.

It is not however limited to this particular mode, as other devices mechanically equivalent for the purpose sought may be used, as the jaws may be made to gripe one side of a common wash-tub by means of springs, cams, or set-screws, when acting upon the jaws as a "vise" to gripe the edge of the tub at one side only; neither is the invention confined to any particular form of "vise" to obtain a gripe upon the rim or edge of one side of a wash-tub, provided sufficient pressure is brought to bear against the edge or rim of the tub, to sustain the wringer in position when in use, against the power tending to displace it when said "vise" shall have sufficient force to support the whole wringing mechanism of the machine upon one side of the tub.

Having thus described the invention, what is claimed and desired to be secured by letters-patent is—

1st. The application of an adjustable clamping device to the frame of a clothes-wringer, when said clamping device shall act as a "vise" for the purpose of firmly attaching a clothes-wringer temporarily to one side of a wash-tub, for readily disconnecting therefrom for the purpose set forth.

2nd. The employment or use of a portable frame or yoke B, with uprights S S^1, and adjustable clamping device, or their equivalents for

supporting the wringing mechanism of a clothes-wringer in position on one side of a common wash-tub, substantially in the manner described and for the purposes set forth.

(Endorsed:) "Patent-Office, Nov. 15, 1867."

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U. S. PATENT-OFFICE,
Washington, D. C., Nov. 19, 1867.

ANN J. SERGEANT,
(Care of Sylvanus Walker,)
Boston, Mass.

MADAM: Please find below the decision of the examiner in charge, in the matter of your application for a re-issue of patent No. 21029, dated the 27th day of July, 1859, for a clothes-wringer, and issued to Isaac A. Sergeant, div. 2, filed March 2, 1867.

Very respectfully,

Commissioner.

EXAMINER'S ROOM No. 8.

The application above referred to has been examined as amended, and found so full of repetitions that it is returned that they may be erased; also the 1st claim, as all clamping devices act like a vise. The amendment should be signed by the applicant or her attorney.

J. T. FALES, *Examiner.*

(Endorsed:) "A. J. Sergeant, amendment ret'd, Nov. 19, 1867. (Substitute for original specification.)

Div. 2.

To all whom it may concern:

Be it known that Isaac A. Sergeant, of Springfield, in the county
72 of Clark, and State of Ohio, invented certain new and useful improvements in clothes-wringers, and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form part of this specification, in which the marks of reference correspond in all the figures.

Fig. 1 is a front perspective view of the frame for supporting the wringing mechanism of the machine, as attached to one side of a common wash-tub by means of a clamping device.

Fig. 2 is a horizontal section through the clamping device, by which the frame of the machine is attached to one side of a wash-tub.

Fig. 3 is a vertical section through the same device.

The first part of this invention consists of a portable machine, which may be temporarily attached to one side of a common wash-tub, or readily disconnected therefrom whenever desired, and is especially adapted to wringing clothes.

The second part of this invention consists in a portable frame, and employed for supporting the wringing mechanism of the machine upon one side of a common wash-tub by means of a clamping device, which is made to gripe one side of a wash-tub for the purpose of attaching and sustaining, temporarily, the entire wringing mechanism of the machine upon one side of a common wash-tub, in a firm and expeditious manner, regardless of the diameter of the tub, which greatly accelerates the operations of washing, rinsing, and wringing of clothes, as will be hereinafter more fully set forth and described.

To enable others to understand, construct, and use the invention, a

description of one of the methods in which it may be carried out is hereafter more fully given. In the drawings annexed, A represents a common wash-tub, B is a yoke whose inner margin is of U form, the
73 sides of which extend upwards, forming uprights S S. From the lower end of the yoke B extend two jaws C C^1, the latter of which contains within a dovetail groove a wedge or key D, whose exposed side is made slightly concave, as shown in fig. 2. The office of the above-described jaws and wedge is to hold the frame composed of the yoke B with uprights S S^1, for supporting the wringing mechanism of the machine in position for use on one side of a common wash-tub in a permanent manner, temporarily, regardless of the diameter of the tub or the thickness of its rim, in reference to which service they are termed collectively the "vise."

This arrangement affords great facility for successively washing, rinsing, and wringing out the clothes from several waters in as many tubs, the wringer being readily changed from tub to tub.

Omitting to describe the general features of the wringing mechanism of the machine, which will form the subject of another application for letters-patent of even date with this, and then more particularly the frame for supporting the wringing mechanism in position, and the clamping device by which the frame for holding the wringing mechanism is attached to one side of a common wash-tub, which forms the subject of the present invention.

When it is desired to have free access to the tub the wringer may be instantly removed therefrom, so as to allow the operations of washing, rinsing, and wringing to succeed each other without trouble or delay, or the wringer may be detached instantly for the purpose of cleaning its parts where dirt is apt to lodge, a common necessity, to avoid soiling the next batch, after dealing with much-soiled or colored garments,

It will be particularly observed that this wringing machine differs very materially from those heretofore constructed, in its attachment by
74 a clamping device to one side only of a common wash-tub, so it can be constructed separate from, and independent of, the wash-tub, to which it may be clamped whenever desired, regardless of its size or diameter; and a further distinctive feature consists in the manner of operation, the wringer being placed in position on one side of the tub and the jaws made to gripe the same firmly. The clothes are admitted to the wringing mechanism of the machine, and pass through it as fast as the water is expelled therefrom, and they are received at the opposite side of the machine into a basket, piece by piece, as they are wrung out. By this means, articles that are of lighter fabrics, as lace curtains, can be operated upon lightly, as those that are heavy require more force; by this means lace curtains may be wrung without injury, as the force required to expel the water, when all are wrung together in a bag, will tear the lighter fabrics before the water is sufficiently expelled from those that are stout and heavy.

I am thus enabled to construct a wringing machine as a separate and independent device from the wash-tub, box or other receptacle for receiving the water when expelled from the clothes. Wringers heretofore constructed have been attached to the opposite sides of the box or vessel, consequently could not be readily attached to common wash-tubs of various diameters; therefore the box must be of a diameter to correspond to that for which the wringer is adapted, and would thus constitute a part of the device or wringing machine. Thus by means of the portable frame for holding the wringing mechanism, adapted to clamp the edge of one side only of a common wash-tub, I am enabled to overcome the serious objections referred to above.

In the clamping device of the invention, a wedge or set-screw, cam, or spring, when having a bearing so that when power is applied to them they, in conjunction with the jaws, gripe the edge of the tub as a "vise," may be used, in the manner and for the purpose set forth.

75 Having thus described the invention, what is claimed as new and desired to be secured by letters-patent, is:

1st. The employment or use of a portable frame or yoke B, with uprights S S^1, or their equivalents, for supporting a clothes-wringing mechanism in position on one side of a common wash-tub for the purposes set forth.

2d. The application of an adjustable clamping device when employed to attach a clothes-wringer to one side only of a wash-tub, substantially in the manner described and for the purposes set forth.

ANN JANE SERGEANT,
Administratrix.
Per SYLVANUS WALKER,
Attorney.

(Endorsed:) "Patent-Office, Dec. 6, 1867. Substitute specification."

59 EAST CHESTER PARK,
Boston, Mass., Dec. 30, 1867.

Hon. COMMISSIONER OF PATENTS:

Inclosed I return the amendment of clothes-wringer re-issue, div. 2, of Ann Jane Sergeant, administratrix of I. A. Sergeant, patent 21029, dated July 27, 1857, the said amendment being so full of repetitions and mistakes to be erased that a new amendment corrected as indicated was returned to you on or about Nov. 20, 1867. Hoping it will be found acceptable as amended, I herewith return this, in compliance with the rules. As the different methods of clamping the wringer to the side of a tub was requested to be erased, it being very important to have it set forth in other equivalent means, it was modified somewhat, but retained, as I believe we are entitled to it as set forth. I would respectfully refer to the application of Mr. Page, of South Boston, Mass., rejected on account of patent granted to Isaac A. Sergeant, July 27, 1857. One claim of Mr. Page was for a clamp to the tub, and he used a set-screw—it being considered by the examiner in charge as an equivalent to the wedge or key, patented by Sergeant, and this re-issue is sought to cover that ground.

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Yours, truly,

A. J. SERGEANT,
By attorney, SYLVANUS WALKER.

U. S. PATENT-OFFICE,
Washington, D. C., Jan. 6, 1868.

A. J. SERGEANT,
(Care of Sylvanus Walker, 59 East Chester Park, Boston, Mass.)

Please find below a communication from the examiner in regard to your application for a re-issue of a patent for a clothes-wringer, div. 2.

Very respectfully,

Commissioner.

EXAMINER'S ROOM, No. 8.

In the matter above referred to, the drawing is returned for the signature of the applicant or attorney and two witnesses.

J. T. FALES, *Examiner.*

77 The United States Patent-Office to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters-patent, granted Harvey W. Sabin, dated 16th August, 1845, No. 4153. "Washing-Machine."

In testimony whereof I, Samuel S. Fisher, Commissioner of Patents, have caused the seal of the Patent-Office to be hereunto affixed this seventh day of March, in the year of our Lord one thousand eight hundred and seventy, and of the Independence of the United States the ninety-fourth.

PATENT-OFFICE, UNITED STATES OF AMERICA. SEAL.

SAMUEL S. FISHER,
Commissioner.

78 The United States of America, to all to whom these letters-patent shall come:

Whereas Harvey W. Sabin, of Rushville, New York, has alleged that he has invented a new and useful improvement in washing-machines, which, he states, has not been known or used before his application; has made oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose:

These are therefore to grant, according to law, to the said Harvey W. Sabin, his heirs, administrators, or assigns, for the term of fourteen years, from the 16th day of August, one thousand eight hundred and forty-five, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the words of the said Harvey W. Sabin, in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have annexed these letters to be made patent, and the seal of the Patent-Office has been hereunto affixed.

Given under my hand at the city of Washington, this sixteenth day of August, in the year of our Lord one thousand eight hundred
79 and forty-five, and of the Independence of the United States of America the seventeenth.

[L. S.] JAMES BUCHANAN,
Secretary of State.

Countersigned and sealed with the seal of the Patent-Office.

EDMUND BURKE,
Commissioner of Patents.

The schedule referred to in these letters-patent, and making part of the same.

To all to whom these presents shall come:

Be it known that I, Harvey W. Sabin, of Gorham, in the county of Ontario and State of New York, have invented a new and useful improvement in the washing-machine, parts of said improvement being also applicable to the construction of churns, and which improvements

I denominate the "Ladies' delight, or portable washer," &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which fig. 1 is an isometrical view of the whole machine; fig. 2 is a vertical longitudinal section.

The nature of improvements consists in the combination of a lever with an inclined plane by means of a movable fulcrum and the arrangement of the wash-box in connection therewith. Its construction is as follows: An oblong frame *a* is made, consisting of four posts, with ties and caps to connect them. At the end of the frame there is
80 affixed to the cap of the frame a triangular piece of wood *b*, the hypothenuse of which is on an angle of about 45°, and inclining down toward the other end of the frame that serves to support a wash-box *c*.

The inclined plane above named is placed in the centre of the width of the frame, as indicated in the drawing. The box *c* is shallow at the end next to the inclined plane, and gradually deepens towards the other end, its bottom being inclined for that purpose. In this box a washer or piston *d* is placed that is as long as the box is wide in the clear. It is made on its front edge in steps, and is in this respect like many others now in use. Two parallel pieces *e* extend back from this piston—one on each side of the inclined plane. These are connected at the extreme end by a handle *f*. About the centre of the length of said pieces *e*, a pin passes through them, on which there is a roller *g* that plays between them on the inclined plane, and, as the handle is drawn back, runs up the inclined plane, causing the handle also to rise. When the handle is forced downward and forward, the roller runs down the inclined plane, and aids the manual force exerted on the washer, thrusting it forward against the front of the box. About the centre of the length of the box there is a reeded roller g^1 placed across it, having its bearing in two standards that project above the edge of the box. Above this roller is a smaller one *h*, which is allowed to move up and down; as the reeds pass it rests, and this is weighted down by a lever and weights underneath the box that is connected with the roller by two arms *i*, that extend up and are hitched over the gudgeons thereof; the lower roller is turned by a crank affixed to the shaft of it. The rollers are for the purpose of pressing out a portion of the water before the clothes are wrung. The wringing is performed by a common wringer, shown attached to the machine and lettered *x*.

This machine is so constructed that the washing-box and pis-
81 ton *c* can be lifted out of the frame, and in its place a churn of similar shape can be put, the dasher of which works as the washer above described.

Having thus fully described my improvement, what I claim as my invention, and desire to secure by letters-patent, is the combination of the inclined frame with the washer or piston, constructed and arranged in the manner and for the purpose set forth.

HARVEY W. SABIN.

Witnesses:
J. J. GRENOUGH.
THOMAS JOHNS.

82 UNITED STATES OF AMERICA,
Rhode Island District, sc:

The circuit court of the United States within and for the Rhode Island district.

To George F. Seymour, esq., of the city of New York, greeting:

Know ye, that, reposing confidence in your wisdom, prudence, and fidelity, we have appointed, and by these presents do authorize and empower you, as examiner under the amendment to the 67th rule in equity, to take the depositions of such persons as may be brought before you by either party, to be used in a certain cause in equity, now pending in said court, wherein The Metropolitan Washing-Machine Company are complainants and The Providence Tool Company defendants.

And to this end, at certain days, to be by you appointed for that purpose, to cause said witnesses, as aforesaid, to be brought before you, and each witness while present before you to examine carefully on oath touching the premises. And when you shall have taken the examination as aforesaid, to reduce or cause the same to be reduced to writing, and to be subscribed by each of said witnesses in your presence; and the same, so taken and subscribed, to return, together with this commission and your doings herein enclosed, sealed and directed to the court aforesaid, as soon as may be.

In testimony whereof we have caused the seal of the said circuit court to be hereunto affixed.

Witness the Honorable Salmon P. Chase, Chief Justice, at Providence, this 2d day of April, in the year of our Lord one thousand eight hundred and seventy.

[SEAL.] HENRY PITMAN, *Clerk.*

83 U. S. circuit court, district of Rhode Island.

METROPOLITAN WASHING-MACHINE COMPANY
against
PROVIDENCE TOOL COMPANY.

It is agreed and admitted, on the part of the above-named defendants, that the wringing-machine which is marked on the upper rubber-roll thereof, "Bought September 14, H. P.," and stamped "Manufactured by the Providence Tool Co., Providence, R. I.," was made by the defendants' corporation, and was purchased of them before the commencement of the above-entitled suit.

B. F. THURSTON,
For Defendants.

OCTOBER 13, 1870.

84 In the circuit court of the United States for the district of Rhode Island.

THE METROPOLITAN WASHING-MACHINE COMPANY, complainant,
against
THE PROVIDENCE TOOL COMPANY, DEFENDANT,
} In equity.

Testimony taken on the part of the complainant, before me, George F. Seymour, a notary public for the city, county, and State of New York,

duly commissioned and sworn, under and by virtue of a commission issued out of said court, under the seal thereof, and which commission is hereto attached:

NEW YORK, *October 13th*, 1870—11 *a. m.*

Present, James H. Parsons, esq., counsel for complainant, and Benjamin F. Thurston, esq., counsel for defendant.

EDWARD S. RENWICK, a witness called for the complainant, being duly sworn, deposes and says:

Examined by James H. Parsons, esq., counsel for complainant.

Q. 1. What is your name, age, residence, and occupation?

85 A. Edward S. Renwick; age, forty-seven; residence, at Millburn, N. J.; occupation, solicitor of patents, and in acting as expert in the trial of patent causes.

Q. 2. Have you examined and are you familiar with the re-issued patent No. 2829, dated December 31st, 1867, granted to Anne Jane Sergeant, administratrix of Isaac J. Sergeant, assignor of Sylvanus Walker, for an improved clothes-wringer, and do you fully understand the same, and the construction and operation of the machine described therein?

A. I have examined the patent referred to in the question, and believe that I understand the construction and operation of the machine described therein.

Q. 3. Please examine the wringing-machine now shown you, marked on the upper rubber roll thereof, "Bought September 14th, H. P.," and stamped on the front, "Manufactured by the Providence Tool Company, Providence, R. I.," and state whether you understand the mechanical construction and operation of the same?

A. I have examined the clothes-wringer referred to in the question, and believe that I understand its mechanical construction and operation.

Q. 4. Please state whether or not the said machine, so marked, and marked by the examiner, "Complainant's Exhibit No. 1," contains in its construction and operation the same, or substantially the same, mechanism set forth in the re-issued patent, No. 2829; and, if yea, state fully and particularly the points of identity and substantial identity between the said machine and that set forth in re-issued patent No. 2829, and the points of difference between them; and state whether or not, if such differences, if any there be, so change the machine that it does not substantially contain the mechanism set forth in re-issued patent 2829.

(The foregoing machine alluded to is put in evidence, and marked "Complainant's Exhibit No. 1, Geo. F. Seymour, examiner.")

A. The said machine, in my opinion, contains, in substance, the

86 mechanism set forth in the said re-issued patent, and recited in the two claims thereof; the points of identity between said machine, Exhibit No. 1, and the mechanism recited in the claims of the patent, are as follows: The said machine has two uprights, corresponding with those marked S S^1, described and represented in the drawings of said patent, which uprights in said machine I have marked with the letters S S^1. The said machine also has a cross-piece connecting the lower parts of the said uprights, which cross-piece corresponds with the cross-piece lettered B in the drawings of said patent, and forms, with the uprights of said machine, a yoke of U form, substantially such as is described in said patent. I have marked the said cross-piece in said machine with the letter B. The said machine also has jaws, which ex-

tend below the yoke (formed by the uprights S S^1 and cross-piece) in suitable positions to embrace the side of a wash-tub, to which the machine is applied, which jaws correspond with the jaws described and represented in the said patent for the same purpose. I have marked the said jaws in the said machine, Exhibit 1, with the letters C C^1. The jaws in said machine are fitted with a screw for the purpose of securing the machine to the object to which the jaws are applied, in substantially the same manner as the machine described in the said patent is described to be secured. The said screw corresponds with the wedge D, described in the patent for the same purpose, and is the well-known mechanical equivalent of a wedge for producing pressure, a screw being in substance a rotary wedge, or a wedge wound round an axis. The said machine, Exhibit 1, differs from the mechanism described in the patent in having two sets of jaws, C C^1, and clamping instruments, while the machine described in the patent has but one set. I do not, however, regard this difference as material, because the said machine, Exhibit 1, has certainly one set of jaws and clamping instrument, and the second set is in the nature of an addition, which undoubtedly is an im-
87 provement without changing the mode of operation of the machine. The said machine, Exhibit 1, contains various other parts which I have not referred to, because the parts which I have referred to are, in my opinion, those only which correspond with those described and represented in said patent; the peculiarities of the wringing mechanism, as I understand the said patent, not constituting any part of the mechanism recited in the claims thereof.

Q. 5. Have you examined, and are you familiar with, the letters-patent of the United States, granted to Isaac S. Wright, July 18, 1832? If so, state whether said patent is for a machine the same, or substantially the same, as that set forth and described in re-issued patent No. 2829; and, if not, state why not.

A. I have examined and am familiar with a certified copy of the patent of Wright, recited in the question. In my opinion the said patent describes a machine which is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof; the two most prominent different differences being that the said Wright machine has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind connected with jaws, so as to enable the machine to be clamped to the side of a wash-tub.

Q. 6. Please answer the fifth question, as having reference to the patent of Harrison Hagans, dated July 5, 1845.

A. I have examined, and am familiar with a certified copy of the said Hagans' patent. In my opinion the said patent describes mechanism, which is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof; the two most prominent differences being that the said Hagans' machine has no jaws adapted to embrace the side of a wash-tub, and no clamping-instrument connected with said jaws, to enable the machine to be clamped to the side
88 of a wash-tub. Said Hagans' patent does describe, among other things, wringing-mechanism, but the frame of said mechanism, instead of being a portable frame, which can be applied to and removed from the side of a wash-tub by reason of its construction with jaws and with a clamping instrument, as is set forth in said Sergeant re-issue 2829, is a fixture upon the wash-tub, the wash-tub itself forming an essential part of the frame of the wringing-mechanism.

Q. 7. Please answer the fifth question as having reference to the patent granted to John McLaughlin, October 16, 1855.

A. I have examined and am familiar with a certified copy of the patent of McLaughlin, referred to in the question. In my opinion the said patent describes mechanism which is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof. The most prominent differences being that the said McLaughlin mechanism has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind connected with jaws so as to enable the machine to be clamped to the side of a wash-tub. The said McLaughlin patent does describe among other things, wringing-mechanism, but the frame thereof is described as being attached to a washing-machine, tub, or bench, instead of being constructed, as required by said Sergeant re-issue 2829, with jaws and a clamping instrument, which enables the machine to be readily secured to and disconnected from the side of a wash-tub.

Q. 8. Please answer the fifth question as having reference to the patent granted to Septimus Tucker, dated January 12, 1809.

A. I have examined and am familiar with a certified copy of the Tucker patent referred to in the question. In my opinion, the said patent describes machinery which is substantially different from the machine, described in the said re-issued patent, and recited in
89 the claims thereof, the most prominent difference being that the said Tucker machinery has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind connected with jaws so as to enable the machinery, or any portion of it, to be clamped to the side of a wash-tub. The said Tucker patent does describe, among other things, a wringing-apparatus, but that apparatus does not have a yoke-frame of any kind corresponding with the yoke-frame described in said re-issued patent, but consists of a square box, having a presser within it, and adapted to rest on the top of the wash-tub, described in the said Tucker patent.

Q. 9. Please answer the fifth question as having reference to the patent granted to E. Berry, November 12, 1829.

A. I have examined and am familiar with a certified copy of the patent of Berry, referred to in the question. In my opinion the said patent describes machinery which is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof, the most prominent differences being that the said Berry machinery has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind connected with jaws, so as to enable the machinery, or any part thereof, to be clamped to the side of a wash-tub. The said Berry patent does describe, among other things, roller-mechanism, which may be used for wringing clothes; but the frame of said mechanism is constructed to fit together inside of the wash-tub, and be held there by friction, instead of being constructed, as required by said Sergeant re-issue 2829, with jaws and a clamping instrument, which permits the machine to be readily secured to, and disconnected from, the side of a wash-tub.

Q. 10. Please answer the fifth question as having reference to the patent granted to Benjamin Hinckley, January 31, 1831.

90 A. I have examined, and am familiar with, a certified copy of said Hinckley patent, referred to in the question. In my opinion the said patent *recited* machinery which is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof, the most prominent differences being that the said Hinckley machinery has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind con-

nected with jaws, so as to enable the machine to be clamped to the side of a wash-tub. The said Hinckley patent does describe, among other things, a portable frame, forming a part of a rubbing washing-machine; but the said frame is constructed to set inside of a wash-tub, and is not constructed so as to be connected with the side of a wash-tub in any manner whatever.

Q. 11. Please answer the fifth question as having reference to the patent granted to Thomas Pierce, December 29, 1832.

A. I have examined, and am familiar with, a certified copy of the letters-patent of Pierce, referred to in the question. In my opinion the said patent describes machinery which is substantially different from that described in the said re-issued patent, and recited in the claims thereof, two of the most prominent differences being that the said Pierce machinery has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind connected with jaws, so as to enable the machine to be clamped to the side of a wash-tub. The said Pierce patent does describe, among other things, a mechanism for pressing clothes in a box for the purpose of expressing the water from them; but the said mechanism is a fixture to the tub or box with which it is connected, and is not constructed to be clamped fast to, or separated from, the side of the tub or box in any manner whatever.

Q. 12. Please answer the fifth question as having reference to the patent granted to Harvey W. Sabin, August 16, 1845.

91 A. I have examined, and am familiar with, a certified copy of the Sabin patent, referred to in the question. In my opinion, the said patent describes machinery which is substantially different from that described in the said re-issued patent, and recited in the claims thereof, the most prominent difference being that the said Sabin patent does not describe or represent a yoke-frame having a cross-piece and uprights corresponding with those of the U-formed yoke-frame described and recited in the claims of said re-issued patent. The said Sabin patent does describe, among other things, a wringing-mechanism, a portion of which is supported by a standard, having jaws and a clamping instrument adapted to secure the said standard to the side of a wash-tub; but the said standard is simply a support for the journal of a shaft, and is not a yoke-frame, such as is described in the said re-issued patent, nor the equivalent of one, by reason of the difference I have above referred to.

Q. 13. Please answer the fifth question as having reference to the patent granted to E. D. Wilson, December 15, 1846.

A. I have examined, and am familiar with, a certified copy of the Wilson letters-patent referred to in the question. In my opinion, the said patent describes machinery which is substantially different from the machines described in the said re-issued patent, and recited in the claims thereof, the most prominent differences being that the said Wilson machinery has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping-instrument of any kind connected with jaws, so as to enable the machine to be clamped to the side of a wash-tub. The said Wilson patent does describe, among other things, wringing mechanism; but the frame of said mechanism appears to be permanently secured to the side of the tub to which it is applied, there being no jaws to embrace the side of the tub, and no clamping-instrument of any description connected with such jaws.

92 Q. 14. Please answer the fifth question as having reference to the patent granted to R. P. Bradley, August 12, 1856.

A. I have examined and am familiar with a certified copy of the Bradley letters-patent, referred to in the question. In my opinion, the said patent describes machinery which is substantially different from the machine described in said re-issued patent, and recited in the claims thereof, the most prominent differences being that the said Bradley machinery has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind connected with jaws so as to enable the machine to be clamped to the side of a wash-tub. The said Bradley patent does describe among other things a wringing-machine having a portable frame, but the said frame is constructed to set crosswise on top of a wash-tub, and rest there by gravitation, and is not constructed with jaws and with a clamping instrument of any description, whereby the said frame can be readily clamped to and disconnected from the side of a wash-tub.

Q. 15. Please answer the fifth question as having reference to the rejected application of J. P. Martin, of February 17, 1852?

A. I have examined and am familiar with a certified copy of the specification and drawings of Martin, referred to in the question. In my opinion, the machinery described and represented in said specification and drawings is substantially different from that described in said re-issued patent, and recited in the claims thereof, there being not a single feature which is common to the two. The said description and drawings of Martin represent and describe wringing-mechanism, which is permanently connected with a tub, without the intervention of any intermediate frame of any description between the tub and the wringing-mechanism.

Q. 16. Please answer the fifth question as having reference to the rejected application of W. W. Reid, of February 27, 1857.

93 A. I have examined and am familiar with a certified copy of the specification and drawing in the matter of the application of said Reid, referred to in the question. In my opinion the said description and drawing describe and represent machinery which is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof, there being no feature in common between the two. The said Reid's specification and drawing does describe wringing-mechanism, but the said mechanism is connected directly with the tubs without the intervention of a frame of any description between the said tub and the said mechanism.

Q. 17. Please answer the fifth question as having reference to the rejected application of Henry Pace, of June 7, 1848.

A. I have examined and am familiar with a certified copy of the specification and drawings in the application of Pace referred to in the question. In my opinion, the machinery described and represented in said Pace specification and drawing is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof; the most prominent difference being that the machinery of said Pace has no jaws, of any kind, adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind, connected with jaws, so as to enable the machine to be clamped to the side of a wash-tub. The machinery of said Pace is a wringing-machine, but the frame of it appears to be constructed to rest upon the ground, and is not constructed with jaws or clamping instruments of any description whatever.

Q. 18. Please answer the fifth question as having reference to the British patent granted to William Kendall, A. D. 1790, No. 1786.

A. I have examined and am familiar with a printed stamped copy of

the specification and drawings of the English patent of Kendall, referred to in the question. In my opinion, the said specification and
94 drawings describe various machines, each of which is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof; the most prominent differences being that no one of the machines described and represented in the said Kendall specification and drawings has either jaws, adapted to embrace the side of a wash-tub, or a clamping instrument connected with jaws, to enable the machine to be clamped to the side of a wash-tub. The said Kendall specification and drawings describe a number of machines, among which are two wringing-mechanisms; one of these is a twisting-mechanism, and is applied directly to the ends of the wash tub without the intervention of a frame of any description between the two; the other wringing-mechanism is a species of press, and is constructed to slide in between the projecting ends of a wash-tub, which are extended above the front and back sides and are governed to receive and hold the said press.

Q. 19. Please answer the fifth question as having reference to the British patent of Zachariah Barratt, A. D. 1808, No. 2175.

A. I have examined and am familiar with a printed stamped copy of the specification and drawing of the English patent of Barratt referred to in the question. In my opinion, the said specification and drawing describe and represent machinery which is substantially different from the machine described in said re-issued patent, and recited in the claims thereof; the most prominent differences being that the said specification and drawing do not describe jaws of any kind adapted to embrace the sides of a wash-tub, or a clamping instrument of any kind connecting with the jaws, so as to enable the machine to be clamped to the side of a wash-tub. The said specification and drawings describe and represent, among other things, a wringing-mechanism, consisting of a species of press, which is connected with the wash-tub by means of tenons, which are inserted into mortises formed in a strong bar or shelf of wood, which is described in the specification as fixed across
95 the top of the trough which forms the wash-tub in the Barratt machine; but the said press has no clamping devices of any description, or jaws of any description, by means of which it can be readily clamped to and disconnected from the side of a wash-tub.

Q. 20. Please answer the fifth question as having reference to the British patent of Richard Cawkwell, A. D. 1813, No. 3641.

A. I have examined and am familiar with a printed stamped copy of the specification and drawing of Cawkwell, referred to in the question. In my opinion, the said specification and drawing describe machinery which is substantially different from the machine described in the said re-issued patent, and recited in the claims thereof; the principal differences being that the said Cawkwell specification and drawing do not describe or represent jaws of any description adapted to embrace the side of a wash-tub, nor a clamping instrument of any description connected with jaws, so as to enable the machine, or any part thereof, to be readily clamped to and disconnected from the side of a wash-tub. The said Cawkwell specification and drawing describe and represent a set of rollers mounted in a portable frame, which set of rollers might be used for wringing clothes, but the said portable frame is constructed and rests upon the rim of the trough forming the wash-tub, and is not described or represented as being either clamped to that trough, or secured to it in any manner whatever.

Q. 21. Please answer the fifth question, as having reference to the British patent of Joseph Jessop, A. D. 1856, No. 2588.

A. I have examined and am familiar with a printed stamped copy of the specification and drawings of Jessop, referred to in the question. In my opinion, the said specification and drawings describe and represent what may be termed a compound washing, wringing, and mangling machine, which is substantially different from the machine
96 described in the said re-issued patent, and recited in the claims thereof; the most prominent differences being that the said specification and drawings do not represent or describe jaws of any description adapted to embrace the sides of a wash-tub, nor a clamping instrument of any description connected with jaws, so as to enable the machine, or any part of it, to be readily clamped to and disconnected from, the side of a wash-tub. The said Jessop specification and drawings describe and represent, among other things, rollers for wringing clothes, but the frame of said rollers, instead of being a separate frame from the wash-tub, and constructed with jaws and a clamping instrument, by which it might be connected with a wash-tub, as described in said re-issued patent, is a part of the wash-tub itself.

Q. 22. Please answer the fifth question as having reference to the French patent of Mons. Deshayes, June 16, 1855, and October 13, 1856.

A. I have examined and am familiar with a certified Patent-Office copy of what appears to be a fragment of the French letters-patent, referred to in the question, marked "Defendant's Exhibit A," and having appended to it a translation of the French description. In my opinion, the machinery described and represented in the said defendant's Exhibit A, is substantially different from the machine described in said re-issued patent, and recited in the claims thereof, in the following respects: The machinery described and represented in said Exhibit A does not contain jaws of any description, connected with the frame of the wringing mechanism, and adapted to embrace the side of a tub, and does not contain a clamping instrument connected with said jaws, so as to enable the frame of the wringing mechanism to be readily clamped upon and disconnected from the side of a tub. The said Exhibit A does describe and represent, among other things, a portable frame, having a pair of standards, and a cross-bar connecting them, which
97 are substantially like the corresponding parts which I have designated by the same names when speaking of the machine described in the Sergeant re-issued patent; but the said frame has neither jaws of any description whatever connected with it so as to embrace the side of a wash-tub, nor a clamping device connected with said jaws, as I have above stated, nor any equivalent for these devices, the said frame being constructed to fit into a slide, formed by two horizontal rails, which are permanently secured to the outer side of the tub or vat with which the frame is to be connected. This construction and mode of application of the frame, represented and described in Exhibit A, requires of necessity that every tub or vat with which the said frame is to be used, shall be fitted with two rails, upon or within which the cross-bars of the frame can be slid, thereby requiring that there shall be as many sets of slide-rails provided for each machine as there are vats or tubs to be used with it; whereas the machine described in said re-issued patent, carries, connected with itself, a set of clamping appliances which are sufficient to enable it to be secured to the sides of any number of wash-tubs in succession, without first applying to them slide-rails or some other contrivance, in addition to the sides of the tub.

Adjourned to November 4, 1870—10.30 a. m.

NOVEMBER 4, 1870—10.30 a. m.

Present—James H. Parsons, esq., counsel for complainant, and Benjamin F. Thurston, esq., counsel for defendant.

The examination of Edward S. Renwick is proceeded with as follows:

Examined by James H. Parsons, esq., counsel for complainant.

98 Q. 23. Please answer the fifth question with reference to the patent of V. R. Stewart, June 24, 1856, No. 15199.

A. I have examined and believe I understand the contents of a certified copy of the letters-patent referred to in the question; the said letters-patent do not describe a mechanism which is the same, or substantially the same, as that described in the said re-issued patent, and recited in the claims thereof, or that has any feature in common with the Sergeant mechanism, except a pair of uprights for supporting wringing mechanism.

Cross-examined by Benjamin F. Thurston, esq., counsel for defendant.

Cross-q. 1. Regarding the division of the Sergeant patent upon which this suit is brought, do you not consider that the invention set forth is for a supporting apparatus for the wringing mechanism described in the other division of the patent, and for any description of wringing mechanism whatever?

A. I regard the invention as being a supporting apparatus for any wringing mechanism with which it may be used with advantage, and for connecting such wringing mechanism with the tub from which the clothes are to be drawn; I think it might be more properly called a supporting and connecting apparatus for wringing mechanism.

Cross-q. 2. Is there any qualification found in the division, No. 2829, of the patent in suit, of the character of the wringing mechanism?

A. I do not notice any statement in precise language as to the nature of the wringing mechanism, but there is language in the patent which shows that the wringing mechanism referred to is of such construction that the clothes pass through it.

Cross-q. 3. Have you examined the wringing mechanism described in the division No. 2652, of the original patent, and, if so, will you describe the same?

99 A. I have examined the description and drawings of re-issue No. 2652, and I find that the wringing mechanism described therein is correctly represented by the wringing mechanism of the model marked "Complainant's Exhibit No. 3." If desired I will give a description thereof in language.

Cross-q. 4. Do you understand that it is proposed from time to time to remove the wringing mechanism from the supporting apparatus, according to the description contained in the patent?

A. I understand that when the wringing mechanism has been connected with the supporting apparatus, it is to continue connected with it, until repairs or renewal are required.

Cross-q. 5. Referring to division No. 2652, and particularly the second clause of the specification of claim, do you not understand that it contemplated that the mechanism which the yoke supports can be readily removed at will?

A. I do, and I had forgotten this feature in making my previous answer; the patent No. 2652 not having been read over by me for nearly a year.

Cross-q. 6. What authority in the description and drawings of patent

No. 2652 do you find for the keeper-strap which I observe is in the model, complainant's Exhibit No. 3, to cause the clamping and twisting mechanism to be confined in the yoke?

A. There is no representation or description in patent No. 2652, of the iron strap, which is found in Exhibit No. 3, connecting the upper ends of the uprights of the yoke-frame.

Cross-q. 7. Is not, in your opinion, the defendant's wringer, Exhibit No. 1, substantially different from the wringing mechanism described in re-issue No. 2652?

A. The wringer, Exhibit No. 1, considered as a whole, is, of course, substantially different from the wringing mechanism described in patent No. 2652, considered separately from the rest of the machine.

100 Cross-q. 8. Regarding the invention set forth in re-issue No. 2,829, as for a supporting apparatus for a wringer of any kind, is it, in your opinion, essential that the support should have two standards?

A. I have not said anything, that I am aware of, to convey the idea that I regard the apparatus described in No. 2839 as a supporting apparatus for a wringer of any kind. In answer to the second branch of the question, I may state that one of the characteristics of the apparatus described in the patent is that it has two standards or uprights, separated by a space through which clothes may be passed, and this characteristic is essential, in my opinion.

Cross-q. 9. Do you mean to have it inferred, from the previous answer, that you do not consider that the said division of the patent comprehends every supporting apparatus for a wringer of any kind?

A. I do not consider that the said patent No. 2829 comprehends every description of supporting and connecting apparatus for wringing mechanism that the mind of man could conceive of. I understand that it comprehends only a supporting and connecting apparatus, which is the same or substantially the same as that described in the said patent, and recited in the claims thereof.

Cross-q. 10. Do you understand the second specification of claim in patent re-issue No. 2829 to comprehend broadly an adjustable clamping device of any kind?

A. I do not understand it to comprehend broadly any clamping mechanism that the mind of man could conceive of.

Cross-q. 11. Can you imagine any adjustable clamping device which, when applied to a wringing-machine for the purpose of attaching it to a wash-tub, would not be within the second specification of claim?

A. All the clamping devices which I recollect at this present
101 moment, are either wedges or modifications of wedges, such as screws, cams, and eccentrics; and any one of these, if combined with the jaws for griping the edge of the wash-tub, substantially in the same manner as described in the patent, would, in my opinion, be comprehended under the second specification of claim as substantially the same, or as the equivalent, or as the well-known substitute for the clamping device recited in the patent, when used in connection with the other parts of the apparatus recited in that claim.

Cross-q. 12. Is the meaning of your last answer, that you cannot, at present, conceive of any clamping device, which, when applied to a wringer, would not be within the second specification of claim?

A. I meant that I did not, at present, recollect any, which, when combined, as I have stated, with the other parts of the apparatus, substantially as described in the patent, would not be comprehended; but

I do not know what I might conceive of if sufficient time was given me for the purpose.

Cross-q. 13. Regard, for a moment, Exhibit No. 1, defendant's machine, and suppose the clamping-jaws and the standard farthest removed from the crank were cut off, and that the jaws on the standard nearest the crank were turned quarter round, and furnished with a clamp as in the machine, so that the wringing-machine could be attached to the tub by that pair of jaws; which of the claims of re-issue No. 2829, in your opinion, would the machine so constructed infringe?

A. As I understand the hypothesis contained in the question, the hypothetical machine would, in such case, stand with the plane of the rollers, at right angles to the rim of the tub, at the point of attachment. In such case the said machine would, in my opinion, infringe both of the claims recited in patent No. 2829.

Cross-q. 14. Now, suppose that the rollers in the machine last supposed, of vulcanized rubber, were removed, and in place thereof a yoke or neck were attached to the shaft which the crank turns, within
102 which yoke or neck clothes could be placed, as in some of the many forms of twist-wringers; or instead of the clothes being placed in such yoke or neck, imagine the end of a net or bag to be attached to such yoke, within which bag clothes could be put—the other end of such bag or net being made fast to the opposite standard—would, in your opinion, both of the claims of the re-issue be infringed by such structure?

A. As I understand the hypothesis contained in the question, the apparatus would still infringe both claims.

Cross-q. 15. Now, suppose the machine to be as supposed in the previous question, with a twist-wringer head attached to the shaft of the crank, but the standard at the end furthest from the crank removed, the apparatus, consisting then simply of a standard, the same constituting a bearing support for the shaft, the shaft having a neck attached thereto, and the standard having a clamping device for attaching it to a tub, such apparatus being capable of being used to wring clothes by attaching one end of the bag to the neck or yoke, the operator holding the other end of the bag in his hand, or making it fast to a pin on the other side of the tub, or to a hook in the wall, or any other convenient place; which of the claims of the re-issue would such structure infringe?

A. In my opinion it would not infringe either.

Cross-q. 16. In the division of the Sergeant patent, No. 2652, the mechanism for clamping the clothes, you have already said, can be removed at pleasure from the supporting apparatus; in the defendant's machine, Exhibit No. 1, can the squeezing-rollers be removed at pleasure from the frame?

A. They can.

Cross-q. 17. Are they intended so to be in the common use of the apparatus, and would it not require the machine to be taken to pieces by means of tools for the purpose?

103 A. There is no necessity for removing the rollers from Exhibit No. 1, and I should suppose that they are not intended to be removed, except for repair or replacement. If they were removed, the supporting and connecting apparatus, consisting of the two uprights or standards, the cross-pieces connecting them, the jaws and the clamping devices, would remain permanently connected with each other as before the removal. The only tool that would be required to effect the removal of the rollers would be a wrench to unscrew the nuts of the

two bolts at the upper ends of the standards, and possibly a nail, or something of that description, to enable those bolts to be pushed or knocked out of the holes in which they are inserted.

Cross-q. 18. After you had done that, the machine would be in pieces, would it not?

A. The wringing-mechanism would be detached from the residue, and would be in separate parts. The supporting and connecting apparatus, consisting of the two uprights, the cross-pieces, the jaws, and the clamping devices would be intact.

Cross-q. 19. Do you understand that there is a distinct machine or apparatus described in each of the divisions of the Sergeant patent, each capable of performing distinct functions?

A. I understand that patent No. 2652 describes and represents a complete wringing-machine, including the wringing-mechanism, and the supporting and connecting apparatus for supporting the wringing-mechanism, and connecting it with the rim of the wash-tub; but that the supporting and connecting apparatus is not claimed by itself. I further understand that patent No. 2829 describes the same supporting and connecting apparatus which is described in patent No. 2652, and that the claims of said patent recite such apparatus, but that said patent neither describes or claims the wringing-mechanism which is described and claimed in patent No. 2652. I do not understand
104 that the supporting and connecting apparatus described and recited as the invention in patent No. 2829, is capable of performing any different function from the same apparatus described but not claimed in patent No. 2652. I understand that, inasmuch as re-issue No. 2652 describes both the wringing-mechanism as well as the supporting and connecting apparatus, while re-issue No. 2829 describes only the supporting and connecting apparatus, the entire machine described in the former patent (re-issue No. 2652) is capable of performing a function (wringing) which is additional to any function which the apparatus described and recited in the claim of re-issue No. 2829 can by itself perform.

Cross-q. 20. Is or not the apparatus or mechanism for clamping clothes, described in re-issue No. 2652, and now shown to you, detached from the supporting mechanism, a complete and distinct mechanism in itself, capable of clamping clothes when so removed, with the same effect as when attached to the supporting apparatus?

A. When it is detached from the supporting and connecting apparatus, it can be regarded in the light of a machine by itself, and when so detached, it can clamp the clothes which are introduced into it, with the same force as they could be clamped in it before it was detached from the supporting and connecting apparatus.

Cross-q. 21. In defendant's machine—Exhibit No. 1—if the rollers were detached from the supporting apparatus, would they in that condition, as separated rollers, be capable of compressing clothes so as to perform a squeezing function?

A. They would not, unless they were held together by some other means.

Cross-q. 22. Regard for a moment defendant's machine—Exhibit No. 1—and suppose the clamping-jaws to be cut off entirely, and that a keeper were attached to each standard, or a single keeper attached
105 to the cross-piece connecting the two standards, and that there was provided a yoke frame upon which such wringing mechanism could be placed at pleasure, and held by such keeper or keepers—you

would say in such case, would you not, that the structure would be within the patent in this case?

A. If I understand the supposition, it supposes that what is called the yoke frame is to be substantially the same thing as what is described in re-issue No. 2652, having the uprights, cross-piece, jaws, and clamping-device, and that the wringing mechanism, mounted in a separate frame, furnished with loops or staples, is to be arranged to slip on to or off of the uprights of the yoke frame. I should say that the wringing mechanism, with its frame, when detached from the yoke frame, would not be within the patent, but that the yoke frame, whether considered by itself, or when connected with the wringing mechanism, would be within the patent in this case.

Cross-q. 23. Would not the wringing-mechanism, when detached from the supporting apparatus, in the case supposed, have a portable frame or yoke, with uprights for supporting a clothes-wringing mechanism, just as in your direct examination you have stated the defendant's machine possesses such characteristics?

A. It would.

Cross-q. 24. When such wringing apparatus was combined with the supporting apparatus supposed, which one of the two yoke-frames that would then exist would be within the patent?

A. The supporting and connecting apparatus would be the one that was within the patent.

Cross-q. 25. Do you consider it, then, essential that there should be a clamping device for connecting the wringing-mechanism with the tub, in order to constitute an infringement of either of the claims in re-issue No. 2829?

106 A. The term "clamping device," as I understand it, when recited in the patent, includes both the jaws for embracing the rim of the wash-tub, and the clamping instrument for producing the pressure; I therefore do not consider it essential that there should be a clamping device for connecting the wringing-mechanism with the tub, in order to infringe the first claim of the patent, but I consider it essential that there should be jaws, substantially such as described in the patent, for embracing the upright side of a wash-tub, in order to constitute an infringement of either of the claims of the patent.

Cross-q. 26. Do you find, in the first specification of claim in re-issue No. 2829, any reference to jaws, or a clamping-device of any kind?

A. As I understand the language of the first claim, it does refer to the jaws, as a part of the portable frame recited in that claim.

Cross-q. 27. Suppose the wash-tub were so constructed that the ends of the standards in the defendant's machine could be entered into mortises made into the tub, so that no clamp-screw, or like device were necessary, and that therefore such clamp-screws were removed, and the ends of the standards were not made into the form of jaws, would such apparatus be within or without the first specification of claim of complainant's patent, in your opinion?

A. In the modified machine, as I understand the question, there would be no slots at the lower ends of the standards, to embrace the side of the wash-tub, nor clamp-screws, or any clamping device, to clamp upon the wash-tub, and the wringing-machine would be held to the wash-tub in the same way that a post is held in a hole, the mortise or hole being formed in the wash-tub. In such case I should say that the machine would not be within the first specification of claim.

Cross-q. 28. Are not jaws and a clamping instrument, substantially like that shown in the defendant's machine, Exhibit No. 1, well-

107 known means for attaching machines of various descriptions to benches or other articles with which they are to be used?

A. They are.

Cross-q. 29. Mention some of the tools and machines with which such instruments have been used from your earliest acquaintance with mechanics.

A. Reels, for reeling thread, vises, eyeletting-machines, small mills, egg-beaters, fluting-machines, and in one of the patents in evidence in this case, that of Sabin, Number 4153, August 16, 1845, a pair of jaws and a screw are used for securing an upright to the rim of a tub.

Cross-q. 30. In the letters-patent granted to H. W. Sabin, August 16, 1845, do you find jaws and a clamping instrument substantially the same as that described in the complainant's patent, No. 2829?

A. Considered by themselves, they are substantially the same as the jaws and clamping instrument which are described in the complainant's patent, No. 2829.

Cross-q. 31. Do you not find in the Sabin patent, that the standard which is furnished with the clamping device is also the support for a twist-wringing mechanism?

A. I do.

Cross-q. 32. Do you not understand, from the language contained in the Sabin patent, as follows: "The wringing is performed by a common wringer, shown attached to the machine, and lettered X," that the inventor contemplated the employment of any common wringer which was known at that day?

A. I do not.

Cross-q. 33. You understand that a common wringer is in that patent shown attached to the side of the tub by a clamping-device, do you not?

A. I understand that a common wringer, such as is lettered X, in the drawings, is shown attached, as stated in the question.

108 Cross-q. 34. Do you understand, from the description in the patent, that the patentee intended to limit himself to that particular description of wringer?

A. The patentee's limitations, as I understand a patent, are specified by the claim, and that has no reference whatever to wringing-mechanism of any description. The descriptive part of the patent preceding the claim, refers to no other kind of a wringing-mechanism than the twist-wringing mechanism lettered X in the drawing, and so far as I can judge of the mind of the inventor from the description, I should infer that he had no knowledge of any other kind of wringing-mechanism than a twist-wringing mechanism, such as that lettered X in the drawing.

Cross-q. 35. Finding it stated in the Sabin patent, and shown in the drawings, that a wringing-mechanism of common construction can be attached by a clamping device to a wash-tub, would it, in your opinion, require the exercise of inventive faculty to attach any subsequently-invented wringing-mechanism to the same wash-tub by the same means?

A. It might, or it might not, according to the circumstances of each case—it being impossible for me to express an opinion on any case that might arise, unless the facts are submitted.

E. S. RENWICK.

Sworn to before me.

GEORGE F. SEYMOUR,
Notary Public and Examiner.

NEW YORK, *October* 28, 1870.

Present, James H. Parsons, esq., counsel for complainant.

THOMAS D. STETSON, a witness called for the complainant, being duly sworn, deposes and says:

Examined by James H. Parsons, esq., counsel for complainant.

109 Q. 1. What is your name, age, residence, and occupation?

A. Thomas D. Stetson; age, forty-three. I reside at No. 153 East Seventy-first street, New York City; occupation, solicitor of patents and expert in patent cases. I have had an office at No. 5 Tryon Row, New York City, since May 1, 1857—over thirteen years—and have, since 1860, served frequently in the United States courts as expert on mechanical questions relating to patents.

Q. 2. What opportunities have you had for becoming familiar with mechanics and mechanical operations, particularly in reference to their application to patents, and to questions arising in patent causes?

A. I do a large business as solicitor, employing several assistants, and have visited the Patent-Office personally, once a month or oftener, since 1858. I learned a mechanical trade when a boy; have studied very carefully all the works accessible on mechanical science; was editor of Appleton's Mechanics' Magazine for one year, and have written much for the press otherwise on various subjects. I was the mechanical reporter—editor, it might be called—for four years. Ever since 1851, when I changed my residence to New York City, I devoted my whole attention to mechanical science, inventions, and patent law.

Q. 3. Have you studied the letters-patent of the United States issued to Ann Jane Sergeant, December 31, 1867, re-issue No. 2829, being a part of a re-issue, in two divisions, of the original patent granted to Isaac A. Sergeant, deceased, dated July 27, 1858, No. 21029, and are you familiar with the invention set forth therein?

A. I have studied it carefully, and am familiar with it.

Q. 4. What is the invention set forth as the subject of said re-issued patent? Please answer fully.

A. An improvement relating to wringing clothes and analogous arti-
cles in connection with a wash-tub or similar vessel. It relates
110 to the means of holding the machine in position. There may be many varieties of wringing mechanism, but all require some means of holding them. The power applied by the crank, screw, or whatever may be the means of operating a clothes-wringer, tends to disturb its position, and even the weight of the clothes depending therefrom or laid therein, and obviously its own weight, all require some means of support. This invention provides, better than any means known before, for supporting the machine on a tub, and making the weight of the tub and of the water therein serve as an efficient means of holding the machine firmly in position against all these disturbing forces, or any others which are likely to be brought to bear on it. There are two parts or separate features, or combinations of features, in the invention. Both relate to the framing, which serves as an intermediate member between the wringing-machine, or the wringing mechanism, and the vessel on which it is supported. The first consists in peculiarities in the construction of the frame itself, and its adaptation to the work of properly holding up the wringing mechanism. The second consists in means, in combination therewith, for tightening the grip or hold of this peculiar frame upon the vessel. The invention, as a whole, adapts the wringing-machine to fit upon an ordinary wash-tub without the necessity for any preparation of the tub, and allows the machine to be shifted rapidly and

with little labor or skill from one tub to another, even if the tubs differ greatly in size, thickness, or other qualities. The frame is formed with two uprights, at a sufficient distance apart to include the mechanism between them, and to give support to the mechanism at points sufficiently distant from each other to effectually resist any tendency to twisting the machine around in the frame. These uprights are arranged to come circumferentially upon the tub—that is to say, the connection between them, which forms another element in this peculiar framing, stands so as to nearly coincide with the side of the tub, when the frame
111 is in position. I conceive this to be an essential element of the invention, and that uprights arranged in the other direction, so that a line drawn between them would stand radially with the tub, would not contain the invention—at least it would not in as good a form. I define the yoke designated B in the patent as being composed of a connection and of two uprights well removed from each other, and arranged circumferentially to the tub, when the frame is in position on the tub. The remaining element in the first part, or first combination in the patent, is the means for fixing the frame firmly upon one side of the tub. There had been previously devices for putting wringing mechanism upon washing-machines and other vessels by extending across the top or sitting down in the bottom. This inventor prepared a pair of jaws which were adapted to fit on one side of the tub, and to sit there as a clothes-pin sits on a line. One jaw stands on the inside, and presses against the inner face of the tub; the other jaw stands on the outside, and presses against the outer face of the tub. These jaws are mounted on the machine or framing described, so as to support it and its dependencies firmly, and yet allow the machine to be readily applied to and removed from the tub. By making the jaws sufficiently wide to fit on the thickest tub, or making the space between them a little wedging—that is, narrower at the top, like the corresponding recess in a clothes-pin—the frame and the mechanism carried thereon could be made to apply with some success on tubs of different thicknesses, and would support the machine against very great movements without any further provisions; but special means are provided in the patent for tightening the grip on the tub, and preventing all rattling or other motion. This provision and combination forms the second combination or point in the invention. There is a wedge provided in one of the jaws, so as to act between that jaw and the adjacent face of the tub. This wedge being driven by the hand or by any convenient appliance, after the frame is placed on the edge of the tub, may be driven to greater or less
112 extents, according as the thickness of the tub may vary, and in all cases effectually tightening the whole. The wedge will retain its place as long as may be desired, and when driven backward or withdrawn, the machine is again liberated, and can be easily lifted off the tub and laid aside, or similarly mounted upon another. It is the combination of this or some corresponding tightening means for tightening the grip of the framing B upon one side of a common tub, which forms the subject-matter of the second part of the invention. It contributes greatly to the usefulness of the framing. It may be varied in form within wide limits. A screw to tighten the grip, extending through one of the jaws, and pressing either directly or indirectly against the adjacent face of the tub, is an equivalent.

I do not consider that the frame B is limited to the U form shown and described. It may be square bottomed or modified in various ways, without defeating the ends which it is intended to serve. So, too, the parts may be duplicated and variously modified in the frame and ma-

terials of the details without disturbing the substantial identity of the invention. I esteem it essential that the jaws denoted in the patent by the letters C C 1, or the equivalent means for holding the framing and its connected mechanism in position on the side of the tub, shall be so arranged and applied as to hold the framing to coincide or nearly coincide with the edge of the tub, and so that the uprights shall present the machine or mechanism mounted thereon in a corresponding position, that is, as before explained, extending circumferentially to the tub or vessel; this allows the machine to be much more compact and convenient than would be possible if extending radially. A more familiar term for circumferentially would be flat-wise; the uprights and their connections stand flat-wise, instead of cross-wise, the edge of the tub.

Q. 5. Have you examined and are you familiar with the wringing-machine, which by stipulation is admitted as manufactured by the defendant prior to the commencement of this suit, and is here
113 present, and is marked on the upper roller "Bought September 14, H. P." and also marked "Complainant's Exhibit, No. 1, George F. Seymour, examiner."

A. Yes.

Q. 6. Does or does not this machine, complainant's exhibit, No. 1, &c., contain the invention set forth in the said re-issued Sergeant patent No. 2829? Answer fully.

A. It contains it. It contains both parts or both the combinations in the patent. It has the peculiar frame and the means for tightening that frame and supporting it and the mechanism on the edge on one side of a common wash-tub or similar vessel. The wringing mechanism is different; it is adapted to express the water by conducting the clothing or analogous articles between rollers, while the mechanism referred to in the patent as forming the subject of another application for letters-patent, meaning another branch or division of this re-issue, is a mechanism adapted to express the water by twisting. But the framing which supports the mechanism in this Exhibit No. 1, defendant's machine, is identical with the yoke B, described in the patent. Its uprights, marked by Mr. Renwick S S 1, correspond in position and in function with the uprights correspondingly marked in the patent; the cross-piece or connection B corresponds with the main body or base of the yoke marked B in the patent, and the jaws or legs C C 1, arranged in a plane at right angles to the plane of the uprights S S 1, and adapted to straddle the edge of the tub, and thereby support the machine on one side of the tub, correspond with the jaws correspondingly marked C C 1 in the patent; they correspond in position and in function. All the parts are duplicated, but this does not destroy the substantial identity of the framing described in the patent; that is to say, there are two sets of uprights, S S 1; both are arranged as the single set are arranged in the patent, and both aid to perform the same function, that of supporting the wringing mechanism and resisting any strain
114 tending to disturb its position; the uprights are a sufficient distance apart to guard effectually against any strain tending to twist or slue the machine around. I consider the framing in this defendant's machine as containing two of the yokes described in the patent, that is to say, the face of the defendant's machine, which, when it is in use, shows two uprights and a connection at the base, which forms the yoke described in the patent, and serves to keep the mechanism in position; and the face which is presented toward the outside of the tub has also two uprights and a connection, which corresponds

to the yoke in the patent, and serves also to keep the mechanism in position. But instead of either yoke serving alone, as in the patent, to keep the mechanism in position, the mechanism is in this, defendant's machine, supported and kept in position partly by one yoke and partly by the other. Any tendency to slue the mechanism around in the frame, which may arise from the forcible turning of the crank or any other cause, is resisted by the uprights in this defendant's machine the same as in the construction described in the patent, except that instead of making one yoke serve to hold the mechanism against a strain in both directions, as in the patent, this machine employs two yokes, so that when you try to twist the mechanism around it is resisted by the inner faces or the faces of the yokes which are presented towards each other, and both yokes are required to perform the function of properly holding it. Any given point on the inner faces of these yokes which is subjected to pressure by a force tending to twist the mechanism around in one direction, is relieved from pressure by applying a force tending to twist or slue the mechanism around in the opposite direction; but in that latter case a corresponding force or pressure is exerted against the corresponding face of the other yoke. This employment of two of the yokes described in the patent, instead of one, may be partly a necessity, due to the difference in the kind of mechanism which it is to support, but it does not, in my opinion, destroy the substantial
115 identity with the yokes described in the patent. There is not only the yoke B and the two uprights S S 1, but two yokes B and two uprights, S S 1, connected at the bottom and also at the top; they serve in effect as a unit. There is no yielding or motion of any kind between the parts of the two frames or two yokes; they serve in function and effect as the single yoke B, with its single pair of uprights, S S 1, described in the patent.

The clamping-jaws C C 1 are also duplicated, but these will require fewer words. The duplication improves the machine and guards the entire machine better against any slueing force at this point—the connection of the framing to the tub. The patent describes a single pair of jaws; they are flattened or widely extended flatwise with the side of the tub in the patent, and they are sufficient to hold the machine firmly against slueing as well as other forces. This defendant's machine has two pairs of jaws; they are mounted under the uprights, and each are narrower than the jaws in the patent, but they perform the same identical function; they sit on and embrace one side of the tub. They are wide enough apart to take in the thickest tub, and they extend down far enough to afford a good bearing and support the framing sufficiently; without their means for tightening their grip upon the tub, the machine would shake or rattle and its action would be less pleasant; but it would be exactly identical in this respect with the machine described in the patent; that also is confined better by the aid of the clamping means. These jaws stand in planes at right angles, or nearly so, to the yokes above; they stand cross-wise to the edge of the tub, while the yokes above stand flat-wise. These jaws in the defendant's machine, which extend down and press against the inner faces of the tub, are substantially identical with the jaws C C 1 in the patent.

The clamping means in this machine are screws; each of the jaws in this machine has an iron nut screwed on the outer face of the outer jaw, and an iron screw fitted therein, which extends through the
116 jaw and projects from its inner face; its outer end is adapted for the action of the thumb and finger in turning it; and its inner

end is provided with a shoe to press fairly and firmly against the tub and tighten the grip of the jaws thereon, without abrading or defacing the tub by the direct contact of the screw. I should consider screws or other ordinary fastenings, penetrating into a tub and depending upon such penetration as the means of affixing the framing to the tub, as sacrificing one of the important conditions of the invention; it would destroy the applicability of the machine to an ordinary tub or vessel without preparation, and it would embarass or defeat the ready removal of the machine from the tub and its ready application to another. The use of different machines on a series of tubs would probably fail to match the screws and holes together, and the result would soon be an indefinite number of holes and the destruction of the tubs. But this machine involves no such difficulty; it tightens the grip of the jaws, C C 1, by a simple forcible pressure; it would not hold except for the jaws.

A screw is universally known as composed, in theory, of a wedge rolled up. It is in short, a spiral, or rather a helical wedge; I consider it as here used an exact equivalent of the wedge D, described in the patent.

In short, I find in this machine of the defendant's, the yoke B, with its uprights S S 1, and jaws C C 1, arranged as represented in the patent, and performing the functions as set forth in the patent. They form a substantial embodiment of the invention described in the patent as "a portable frame or yoke B, with uprights S S 1, or their equivalents, for supporting a clothes-wringing mechanism in position on one side of a common wash-tub, for the purposes set forth," and I find in this machine of the defendant's, the clamping screw and its shoe, performing the functions in the combination, and embodying the invention set forth in the patent to be "an adjustable clamping device when employed to attach a clothes-wringer to one side only of a
117 wash-tub, substantially in the manner described, and for the purposes set forth."

Q. 7. Have you examined, and are you familiar with all the several matters set forth in the amended answer of the defendant in these proceedings, including sundry British patents, and sundry American patents, and rejected applications for American patents, and have you also examined, and are you familiar with the French patent of M. Deshayes, June 16, 1855, and October 13, 1856, which last the defendant corporation has notified the complainant will be set up in defense?

A. Yes, I have examined certified copies of all these, except the French patent; I have very carefully studied what I suppose is the only knowledge yet accessible in this country about the French patent, the publication thereof, with its addition, as in the question, in the official publication Brevets d' Invencion, vol. 50, 2nd series p. 66, with the accompanying plates; I may say that I am familiar with all these.

Q. 8. Please say whether or not any or all of these patents, or rejected applications for patents, or the machines described therein, contain the invention set forth in the said re-issued patent No. 2829, and give your reasons for any opinion you may express; please answer in full.

A. None of these contain the invention. Neither of them contain either the first part or the second part of the invention.

The patent of I. S. Wright, 1832, describes a wringing-mechanism, supported in uprights permanently attached, as I understand it, to the tub or corresponding vessel; there is no provision for connecting and disconnecting; it extends across the tub, and is simply a framing that ex-

tends over and down the outside, on opposite sides; it will not sit on one side, and will not match different sizes of tubs.

J. P. Martin's rejected application in 1852 has no uprights; it
118 is a frame extending across the tub and through some portion of it; it will not exchange from one tub to another; it does not sit on one side; there is no yoke or uprights.

W. W. Reid, rejected, 1857, has no uprights, yoke, jaws or frame, except the sides of the tub; he makes holes through the sides of the tub, and stretches the clothes across, with means of twisting; there is no portable frame to support the wringer of any kind; or rather, considering the whole thing as a "wringer," which he seems to term it, he has no means of attaching it to a tub. He uses a "wringing-bag, which is made of strong canvass cloth, duck, netting," or the like, "securely fastened by screws or other suitable means, to one end of the box." The net is carried out through a hole in the other end, where there is a windlass for twisting. He says, "the wringing-bag and windlass may be so adjusted as to be unshipped at pleasure, and may be fitted into any other suitable frame."

I consider it a wringing-mechanism supported in a frame, the frame being the tub or box itself. It is too obviously unlike the yoke and jaws of the patent to require many words.

Henry Pace, rejected 1848, is a frame which supports twisting-mechanism independent of the tub, unless it be considered to embrace an entire tub. It is a large frame-work, having a platform on which the tub is set, and having a twisting-net extending across over it, with means for twisting. I has not the framing in the patent.

H. Hagans, 1845, is a roller wringer, having a frame with uprights to support the mechanism attached to one side of a vessel. The vessel is a washing-machine, and a portion of the mechanism, to wit, the levers which press the rollers together, extend across over the box which corresponds to the tub, and have a strap or string leading down the opposite side and passing around pullies to a treadle. This would embarrass the operation of removing the wringer, and in fact defeat the possibility of removing the machine entire, and using it on another common
119 tub, if we include these straps and appendages. Bnt I consider it possible that the machine could be used with some success without these adjuncts, and have studied it carefully in that view, although there is no warrant for it in the patent.

Considered as detached or not at that end from the tub, the other end is not the equivalent of the invention described in the complainant's patent, No. 2829, because there is no portable frame of the kind described, and the machine as a whole, is not a portable wringer. There are no jaws C C I, nor any equivalents therefor; the uprights which support the rollers are screwed upon the side of the washing-machine; the screws for that purpose enter the wood; they hold the framing thereon in the ordinary manner of using screws and nails; the framing can be removed by taking out the screws, and it can then be applied to another tub or vessel by screwing the screws into holes. We have screws in common use which make their own holes; it would not be absolutely necessary to make holes in advance in the sides of the tub, but its use would leave holes therein, and the machine is no more adapted for such exchange than any independent article is adapted to to be attached, as for example, two boards are adapted to be fastened together. There is an entire absence of the element of the invention which is described by the term "portable."

A peculiar difficulty would be met with in attempting to use such a

machine upon tubs of different diameters, due to the varying curvature of the sides. I think it would be but mechanical skill, and would not require invention, to curve or concave the face of the framing which matches against the washing-machine, and in Hagan's description is plane, and thus adapt Hagan's machine to fit against a common wash-tub; it would require invention to arrange the other parts of Hagans' machine and make it perform successfully with his strap and pullies and treadle on a common wash-tub; but I have already stated that to be beyond disctission, and am considering simply what would re-
120 sult if something altogether beyond the patent were done, by taking away a part and leaving the rest as free as possible. If the machine, so disconnected from its intended operating means, were fitted upon a wash-tub or analogous curved vessel, it could fit only one side; it could be changed from one to another with proper labor, but only to another of corresponding size.

Beyond all these considerations, I find the absence of the jaws C C, or any means of correspondingly making the machine self-sustaining, a very substantial difference from the framing and machine described in the patent 2829. The mechanism to be supported is good wringing mechanism; the vessel upon which it is fastened is a good vessel, and the framing by which the mechanism is supported upon the vessel is a good framing, but it is not the framing described to perform that end in the patent. There is no equivalent, either in the first or second combinations in the patent; none of the first, because, in the patent, "the first part of this invention consists of a portable machine, which may be temporarily attached," and in the claim is described as a "portable frame" for supporting, etc., "on a common wash-tub, for the purposes set forth," and is set forth as "adapted to clamp the edge of one side only of a common wash-tub," none of which applies to this Hagans framing; and none of the second, because, "the second part of this invention consists of a portable frame employed for supporting the wringing mechanism of the machine upon one side of a common wash-tub, by means of a clamping device which is made to gripe," and is an "adjustible clamping-device," to attach "a clothes-wringer;" substantially in the manner described, and for the purposes set forth, and is described as "two jaws C C 1, with a wedge or key D," "termed collectively the vice." The patent says, "the wringer being placed in position on one side of the tub, and the jaws made to gripe the frame firmly;" Hagans' machine has no jaws, and no equivalents therefor, no wedge D, and no equivalent therefor; it does not contain
121 either the first or second part of the invention in the Sergeant patent.

J. McLaughlin's patent, 1855, has two frames supporting the wringing-mechanism; each frame is a straight plain piece of stuff at the bottom, "to be attached to a washing-machine, tub, or bench, as may be desired." It is not the equivalent of the invention in the complainant's patent 2829, on account of the entire absence of the means described, of attaching temporarily to a tub, and of changing from one to another. This framing was intended to be attached permanently by screws, or the like; there is nothing shown nor suggested for attaching or detaching. It has two frames attached apparently to opposite sides of the tub and made a permanent part thereof; in practice it would only be used on a bench or on a washing-machine.

W. Kendall, a British patent of 1799, is a screw-press, serving as wringing-mechanism, and fitting across a washing-machine frame, and supported in grooves in permanent uprights, on opposite sides. The

wringer is easily attached and detached; it is portable, and has a kind of wringing mechanism, which, in common with twisting machinery, and various others, including cen'rifugal drying machines, may be made very efficient. It is a wringing-mechanism, mounted in a portable frame, and adapted to be supported on the tub or vessel which contains water. But it cannot be applied to a common tub; it cannot be attached to one side only; it has no jaws C C 1; it requires a machine having uprights with grooves especially prepared. Like the French machine, of which notice has been given, referred to in the question, it can be attached to a vessel provided with grooves especially adapted for it; it has no capacity for clamping on a common vessel, and cannot match even upon prepared machines of different sizes.

Z. Barratt, (British,) 1808, is a screw-press mechanism, mortised into a cross-bar, across the top of a washing-machine. It requires a specially prepared washing-machine, or, in other words, a specially prepared tub.

122 R. Cawkwell, (British,) 1813, has a wringing-mechanism with rollers, supported in a framing which is a part of a washing-machine. It is called a "washing-machine," and the rollers are described for washing principally, but it would serve as wringing mechanism very efficiently. It is not a portable wringer, however. Its frame has none of the peculiarities of complainant's patent No. 2829.

Joseph Jessop, (British.) 1856. This has roller mechanism mounted in a fixed frame-work. There are two forms. In one, the frame-work forms a part of a washing-machine, but it is not detachable therefrom; it is not a portable wringer. In the other it is mounted in a seperate frame, standing on legs, which legs have casters, and allow it to be moved about on the floor. This is a portable wringer. But it is not a frame adapted to fit on a tub. It is eminently the kind of framing, and the method of supporting a wringing-mechanism, which this invention was designed especially to supersede.

Septimus Tucker, 1809, describes a squeezer-press sitting on top, and extending across the washing-maching to which it is adopted. It sits a little down into the tub, as I understand it, but is not otherwise defended against lateral movements. It would not match to different tubs, except very loosely. It is a portable wringer. There are none of the peculiarities of complainant's frame. It is a lemon squeezer, extending across the top of the tub, and shouldered a little to allow it to sit a little in. There are no jaws, and no griping means.

Edwin Berry, 1829, has a roller mechanism, with weighted levers to hold the rollers together, supported in a frame which sets down within the tub. It says, "the size of said frame will depend upon the size of the tub into which it is to be placed, or it may be placed within a box or any vessel capable of containing water." It is not supported on one side of a tub. It has no jaws C C 1, nor any griping means.

Benjamin Hinckley, 1831, describes a rubbing mechanism,
123 which sits down into a tub, without any provision for expressing water, as I can find. I think its citation in this case was an inadvertence; there is certainly no equivalent of complainant's yoke-frame and clamping-jaws, or of his griping means in combination therewith.

S. P. Wright, 1832, is obviously a confusion, and mistaken citation of I. S. Wright of that date, already canvassed; the wringing-mechanism, as before stated, extends across the tub from fixed uprights on opposite sides, attached perm'ently.

G. Pierce, 1832, is obviously a mistaken citation of Thomas Pierce,

of that date; there is no drawing. The description sets forth a screw-press, which, like several others already canvassed, would express water efficiently, though less perfectly than the very excellent rubber roller mechanism now in vogue. In the absence of drawings, the description must be negative; there is no such frame as is described in complainant's patent; there is no yoke, no jaws, no gripe.

H. W. Sabin, 1845, describes a wringer, part of which is adapted to be attached and detached with facility from a tub. The wringing-mechanism is supported in part directly on the machine, and the portion detached at pleasure is only a portion, and not the whole of the wringing-mechanism. This part has the jaws and the griping means, but it has not the yoke B, with the uprights S S 1. There is no equivalent for these. There is a single post, supporting a crank, with a jaw for holding one end of the goods. The other end of the articles to be wrung is held between rollers, which rollers are supported in bearings in the fixed frame-work of the machine. That part of the wringing mechanism, or some equivalent, is essential to its operation.

If the other portion of the mechanism is detached and removed from the machine and placed on another, it must be applied to another which has already the rollers *g' h*, to hold the other end of the clothes, or it will not succeed. It could not be used on a common tub.

124 There is in Sabin's machine, the equivalent of the jaws C C 1, and the equivalent of the griping means D in complainant's patent, but there is no yoke B, with the uprights S S 1, and the machine as a whole cannot be used on an ordinary wash-tub, nor changed from one tub to another. There is no equivalent of either of the combinations forming the first or second part of the invention of complainant.

E. D. Wilson, 1846, describes a part of a wringing-mechanism some way fixed on the side of a tub or washing-machine. There is no indication that the wringer is detachable. It appears to be fixed, and to form a permanent portion of the washing-machine to which it is attached. There certainly is no equivalent for the jaws C C 1. Instead of a single post, as in Sabin's machine, to hold up the crank-shaft, there are two posts or uprights extending up from the framing and forming a part thereof, but they are arranged one behind the other. A line drawn from one to the other, and extended, would cross the side of the washing-machine or tub, instead of coinciding with it. If it is to be considered in the light of an equivalent, or partial equivalent, for the uprights S S 1 in complainant's patent, it will differ therefrom in its arrangement in this respect, as well as in its function. Complainant's uprights, S S 1, are arranged flatwise to the side of the tub. In this Wilson machine the uprights, or bearing-posts, are arranged radially, or crosswise to the side of the tub. This arrangement extends the machine necessarily either into the tub, so as to interfere with its use for other purposes while the wringer is fixed on it, or it extends it greatly outside of the tub, so as to bring it in the way in moving around. The radial arrangement of the uprights makes the machine clumsy, difficult to confine on the tub by any detachable means, and is in theory, as well as the entire construction of this machine in practice, substantially different from that of complainant. The wringing-mechanism is not detachable. There

125 are no jaws C C 1. There are no uprights, S S 1, forming the yoke arranged circumferentially on the tub, and the wringer is not portable, in whole or in part. It is not plain whether the hitching-post which is referred to is the upright represented in figure 1, close to the twisting-shaft, or is some post not represented on the other side, or on some other part of the machine. He says, "Being twisted

around a fixed object, and the crank turned, will cause the article put therein to be twisted, and the water to be expressed therefrom," without saying where that fixed object, which I have just termed a hitching-post, is. The mechanism is efficient, and will express the water very thoroughly; but there is no equivalent of the portable yoke-frame, or of the same with griping means.

Adjourned to October 29th, 1870, at 9.30 a. m.

OCTOBER 29TH, 1870—9.30 a. m.

Present—same parties.

THOMAS D. STETSON, witness for complainant, continues his answer to the 8th interrogatory:

V. R. Stewart, 1856, shows a wringing-mechanism mounted permanently on and extending across a washing-machine. There is no copy at hand here with which to refresh my recollection of its construction, but I have a sketch in my hand which I made myself when I studied the patent very thoroughly some time ago. It is not a portable wringer. There are no jaws, S S 1, and the framing has none of the peculiarities which belong to complainant's invention. There is no griping means.

R. P. Bradley, 1856, is a portable, detachable wringer. It has a framing, which is adapted to be attached to a tub, and it is capable of being attached and detached with tolerable facility, but the tub requires special preparation. The wringing-mechanism is of the twisting character. It is supported on a long framing, which extends across the tub, resting on the upper edges thereof, and held down thereto by hooks. He says the machine is attached to the machine by hooks hooking into the staples in the tub, or in any other convenient manner. This
126 last suggestion is rather difficult of exact definition, but the whole machine is evidently incapable of being supported on one side of the tub alone, and there are no means for doing so shown or hinted at. There are no griping means. The machine cannot be shifted from one tub to another of different size. The language, fairly construed, and with reasonable liberality, in applying mechanical skill in carrying it out, calls for hooks and staples, or same analogous fastenings, one part of which shall be secured on the tub. In short, it requires, beyond question, a special preparation of the tub. The machine is portable, and may be taken off one machine and put on another, but only on another similarly prepared to receive it.

Deshaye's French patent, 1855, with its additions, as published and set forth at the commencement of this answer, describes an elaborate and complicated machine for dyeing, and machinery adapted especially to the treatment of goods in dyeing, but which might also be used in wringing clothes. Mounted on a frame which is capable of being attached and detached, the machine would be very illy fitted to serve as a clothes-wringer, by reason of the mass of matter, table, trough, &c., attached to it. But there is an efficient wringing-mechanism there, and it is detachable from the vat, and it is especially set forth that it can be detached from one vat by a movement in grooves to allow it to be changed from one vat or tub to another. The framing entirely fails to correspond with the framing in the first part of complainant's invention in the essential point that the tub or vat requires special preparation. The framing, with the wringing-mechanism supported therein, can be shifted from one vessel to another, but only to another specially prepared for its reception.

The grooves referred to as sustaining the framing are on pieces bolted or otherwise fixed on the outside of the vat. There are two pieces of

angle-iron extended horizontally along the side of the vat, parallel with each other, the upper one having its bent edge or side bent down-
127 ward, and the other having its bent edge or side bent upward. In other words, these angle-irons stand hooking in the direction towards each other. The framing of the wringer, as I will call it—and it is fairly an expressing-machine for expressing the dye-stuff from the goods—is provided with a sort of corresponding rails at the corresponding levels, and these rails hook in the direction from each other, so that by bringing the machine to the proper level against the side of the vat, and then sliding it horizontally, the hooks or hook-rails on the wringer-frame engage with the angle-irons on the vat, and hold the machine firmly in place. A sidewise sliding in the opposite direction, or, perhaps, by continuing the motion in the same direction, would disengage the wringer. I have made a sketch, which illustrates this portion of the mechanism which I here present to be annexed to my deposition as an exhibit.

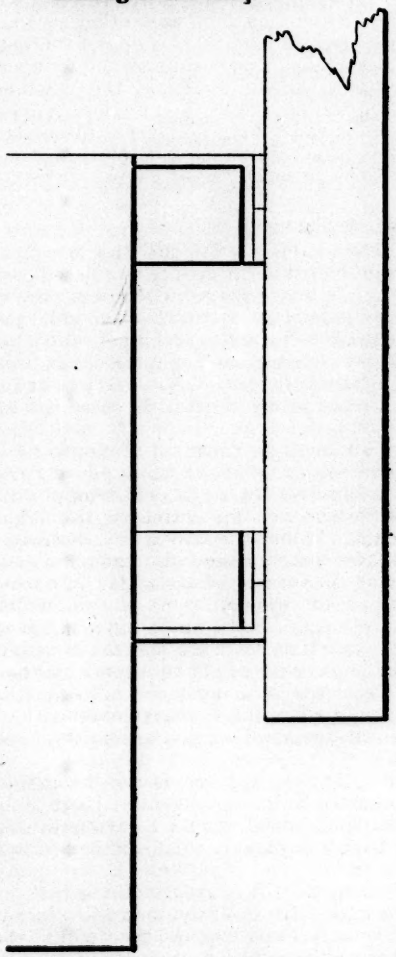
(Paper marked by examiner, "Complainant's Exhibit No. 2.")

There are two drawings or sketches, side by side; the first merely in black outline, the second is roughly shaded and tinted with colored pencils. The first sketch is a literal rendering or reproduction of the drawing as it appears in the engraving in the French publication, enlarged some fourfold. There is an obvious error in the engraving, in the junctions of the lines in the upper part. I mean that the upper angle-iron is not represented with accuracy. Exactly as drawn, I can put no intelligent construction upon it. It does not agree with the description, and would not hold the machine on any principle known to me; but a very slight correction makes the whole thing clear. I pronounce the description and drawing, taken together, to be not an unintelligible and unpracticable thing, but a reasonably well set forth construction, the description containing within itself the means for correcting the slight error in the drawing. The shaded figure shows in strong lines, as nearly as I could sketch, the same construction and the same drawing
129 of the lines, simply correcting the error. I have added, in dotted lines, a rough representation of common wood-screws, which might be used as fastenings for the several parts, and I have tinted to aid in distinguishing them. The tinted parts represent the wringer-frame, and its attached rail, the blue being the rail or connection, termed "traverses, $f f$," in the patent. These are permanently attached to the frame proper, the "chassis, $f^1 f^1$," and are applied and removed with it. The parts shaded dark, or with a black pencil, are permanently attached to the vat or tub, the "curve A."

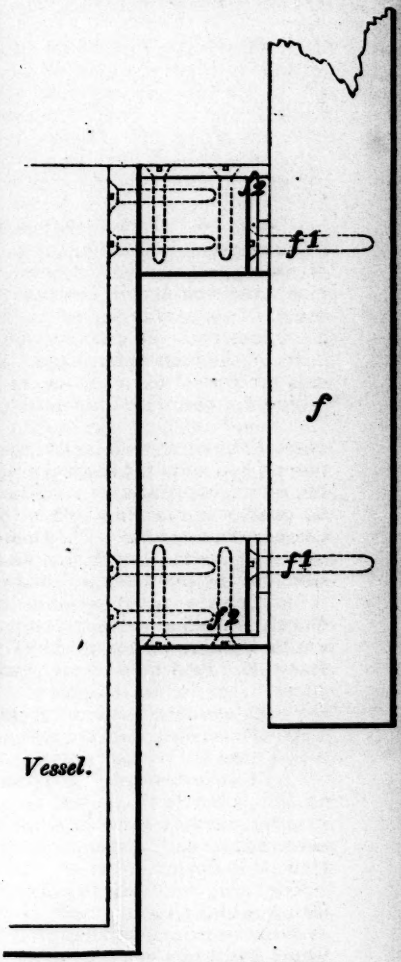
There is no necessity of assuming the parts to be fastened together by the particular wood-screws indicated in the dotted lines; there is no express warrant in the patent for their introduction; I have indicated them simply as the means which I, as a mechanic, would employ to construct the device in the best manner.

The rails, f^1, on the wringer frame, and the rails, f^2, on the tub, by their mutual relation, hold the wringer against all the forces to which it is liable to be exposed in use. The lower rails support the weight; the upper rails prevent its inclining over or tilting, and the hook-like character of both prevents its being moved bodily from the tub, while the angle irons, f^2, both at top and bottom, and the wood by which they are attached, prevent the wringer from being pressed any nearer to the vat. The side movement, by which it is applied and removed, may be obstructed by friction to a sufficient extent to make the machine reasonably firm.

[Exact enlarged copy of the French drawing so far as relates to the means of attaching to the vat.]



[Witness' view of the construction in the light of the text.]



THOMAS D. STETSON.

The wringer is applied to one side only of the vat, but it cannot be applied in the manner described in complainant's patent, or in any other manner, to one side of an ordinary wash-tub. It can be exchanged from one properly prepared vat, to another of a different size, but it could not be to another tub of a different size, even if the tubs were previously prepared; the curvature of the side of the small tub differing from the curvature of the side of the large tub would prevent the success of that operation.

130 There is no warrant in the patent for adapting the machine to any but rectangular vats; the rails, both on the wringer and on the vat, are straight, and consequently the grooves, in which the wringer slides and is supported, are straight; but I do not think it would require invention to make them curved. It would be mere mechanical skill to adapt this invention—I mean the Deshayes arrangement—to a vat having a curved end, or to a completely cylindrical cistern or vat; the conical form of a wash-tub would involve some difficulties, but a plain cylindrical form would be easily matched, by correspondingly curving the rails f^2, on the tank, and the rails f^1 on the removable frame, and giving a corresponding form to the wooden pieces, by which the rails or angle-irons, f^3, are secured, but I am positive it would require invention to enable such an arrangement to be transferred between two tanks of different curvatures; as, for example, to shift the "essoreur," or squeezer, which I have called the wringer, from a cylindrical tank of ten feet diameter, to one of seven feet; I am clear on the point, that the inventor contemplated and set forth nothing of the kind.

In changing the machine from one tank to another, I have said that both tanks must have been previously prepared; I now say further, that it would require that the tanks must have been prepared with this particular wringer; any mismatching in the rails would defeat the operation. If the rails f^2 on the tank are a little too far apart, or too near together, the machine will not match and the exchange cannot be made. It might be practicable to establish a fixed system or gauge for these rails f^2 f^2, having them of a uniform distance apart on all tanks, so that all wringers made to conform thereto could be applied indiscriminately, the same as we make, or try to make, uniform sizes of railroad tracks, and bolts and nuts, lamp-tops and burners. But such a systematic preparing of all the tanks in a large manufactory, or in the whole trade, and thereby allowing the indiscriminate shifting of

131 wringers around from one to another, is very different in effect from the invention of complainant, which allows his wringers to be shifted between all tubs, washing-machines, vats, tanks, and all descriptions of vessels, square, cylindrical, or conical, of all sizes, without any preparation at all. This desideratum was what the invention in the patent No. 2,829 appears designed to accomplish. Its peculiarities are admirably and perfectly adapted to it. There is no equivalent for it in the French machine of Deshayes. Deshayes' machine fails to meet the conditions set forth in the first part, as the first combination in the invention, because there are no jaws C C 1, and no equivalents therefor; there are no means of applying the frame and the connected wringing mechanism to one side of a common wash-tub. And it fails to meet the conditions set forth in the second part, as the second combination in the invention, because there is no griping means for tightening the aws C C 1 on such tub or vessel. By "combination" here, and throughout my testimony, I mean the aggregation and co-operation of different essential features in the device. I am not particular about the term; I

have used it as a short expression of the points. I have considered the first part of the invention as lying in a peculiar framing, having uprights S S 1, and jaws C C 1, on a single yoke frame B, arranged as shown, and adapted to perform as shown. And I have considered the second part as lying in such framing with additional feature or element of the tightening means D.

Q. 9. Do you think of anything further which you may wish to add concerning the subjects about which you have testified in your last answer? If so, proceed to do it in your own way, giving, as before, your reasons for any opinion you may express.

A. I think of nothing important. A copy of the patent of V. R. Stewart, 1856, has been brought here since my testimony thereon, but I find nothing to add or subtract from my previous dissection thereof.

132 Q. 10. Have you, or not, successfully used a clothes-wringer, having a frame made in exact accordance with the patent of complainant, re-issue No. 2829, and with the same wringing mechanism which is referred to in that patent, as intended to be used therewith?

A. Yes. It is a successful machine. I have wrung a sheet with it, and afterwards succeeded in expressing but little more water by passing the sheet through a "Universal Clothes Wringer," one of the best rubber roller wringers, and best wringers altogether, known in the market. I used it in that case with the rollers well compressed together, to express all the water possible to remove at a single operation. Then I wet the sheet again, and passed it first through the same roller wringer in the same condition every way; and then gave it a second wringing in this Sergeant machine, and succeeded in expressing more water by the second wringing in this case too; a second wringing of any article, with an equally efficient machine, will usually remove a little more water.

I pronounce the wringer set forth in this patent, having the frame particularly described herein, and the mechanism which is described in another patent and referred to herein by the words "which will form the subject of another application for letters-patent, of even date with this," and which was patented, re-issue, No. 2652, to be a reasonably successful and good wringing machine; it is not as good as the rubber roller mechanism which has now greatly superseded the twisting wringer. There continue, however, to be inventions of improvements in twisting wringers; I have lately assisted a party to procure a patent on an improvement in that form of wringing mechanism, and it is now on exhibition in the fair of the American Institute; the agent says they are manufacturing and selling large numbers.

The Sergeant machine with the twisting mechanism referred to, is not in the market, so far as I am aware. I wished to test no modification or subsequent improvement, but a machine having all its parts
133 throughout, as exactly as possible, conforming to the idea and description of the inventor; I had such a machine built according to my instructions, and found it to conform very perfectly in every respect; that was the machine which I used for the wringing, and matched for completeness of work against the best I could find of other varieties, as I have explained; the machine is here, and may be put in evidence as an exhibit.

(The machine referred to is put in evidence, and marked "Complainant's Exhibit, No 3," by the examiner.)

Adjourned to November 5, 1870, 10 a. m.

NOVEMBER 5, 1870—10 a. m.

Present—James H. Parsons, esq., counsel for complainant; and Benjamin F. Thurston, esq., counsel for defendant.

The cross-examination of THOMAS D. STETSON is commenced as follows:

Examined by Benjamin F. Thurston, esq., counsel for defendant:

Cross-q. 1. What is the function or office which the portable frame or yoke B, with the uprights S S 1, described and claimed in re-issue No. 2829, performs?

A. It supports the wringing mechanism.

Cross-q. 2. Do you regard it an essential feature of construction of the instrument described in the first specification of claim, that the yoke should have a clamping device?

A. No; not as I understand the words "clamping device" to
134 be used here. In a certain sense, a clothes-pin, or analogous forked piece, clamps, or may clamp, itself upon an object of proper size, inserted tightly within it. But there is another sense of the word "clamping," in which it means to include a power to tighten its grip after it is in position. I understand the first clause, or first specification of claim, to require as essential, simply the jaws S S 1, properly connected with the yoke, and not to require any wedge or other means of tightening the grip thereon. The clamping device which is referred to in the second clause uses the term in the second sense I have enumerated, but there is no requirement for anything to tighten the grip in the first clause, or first specification of claim. That requires the jaws, C C 1; the second clause requires, in addition thereto, the wedge D, or some equivalent tightener.

Cross-q. 3. Referring to the second specification of claim, do you find a yoke frame, as an element in the combination therein described?

A. Yes.

Cross-q. 4. In what words?

A. "When employed to attach a clothes-wringer," etc., in the claim, and—a portable frame—employed for supporting—upon one side—in the recital, near the commencement of the specification. It is common to refer to the entire descriptive matter in the specification, in determining what is required to fulfill the conditions indicated in the claim. The descriptions and drawings show the exact form preferred for the yoke frame. The recital at the commencement is, ordinarily considered, of special value in aiding to arrive at the proper meaning of the claim. The entire specification conveys to my mind, in connection with the state of the art at that time, the idea that the claim, as there specified, requires, as essential features, the jaws, C C 1, to set astride and press against both faces of one side of the tub, and the yoke, B, and the uprights, S S 1, arranged relatively thereto, about as there specified.

Cross-q. 5. Do you find any specific reference to the yoke frame in the second specification of claim?

135 A. No.

Cross-q. 6. You have said, in answer to the 1st cross-interrogatory, that the function of the yoke is to support the wringing-mechanism. Why is such yoke made U form, or curvelinear at the bottom?

A. I see now but three reasons—first, the uprights are stronger or more strongly supported than if the material was cut out in a sharp corner at the base of each; second, it more smoothly receives the clothes, and guides them through in connection with any wringing-mechanism in which the clothes are drawn through between the uprights; and third, it makes a better fit to the revolving part when used with the particular

kind of wringing-mechanism which the inventor describes or refers to as his intention to use in this yoke frame. The rounded form is better than the square, or any other which occurs to me, for all these reasons; but I do not esteem it essential.

Cross-q. 7. Is that form of the yoke anything more than to give it a proper bearing, as a journal bearing, for a rotary clamp for wringing clothes? And before answering the question, please refer to the last clause of the first specification of claim in division of patent re-issue No. 2652.

A. I have in my hand the re-issue No. 2652, and have observed the last part of the first specification of claim. I answer the question affirmatively. I do consider it more than to give it a proper bearing, for the first and second reasons given above. The influence of the curved form in strengthening the uprights is very great. The importance of this form in any wringer is generally recognized; it is adopted in nearly all the modern machines.

(Counsel for defendant objects to all of preceding answer as irresponsive, after the word "affirmatively.")

136 (Counsel for complainant submits that it is proper for the witness to give his reasons for any opinion, or to qualify his answer in any way he may deem necessary.)

Cross-q. 8. Machine Exhibit No. 3 is a correct representation of the machine described in both divisions of the patent, with the single exception of the keeper-strap, referred to in Mr. Renwick's deposition, is it not?

A. Yes. There are differences, such as the top of the uprights S S 1, being rounded in Machine Exhibit No. 3, and octagonal in the patent; but I consider them of no consequence. It was intended to be exactly the machine described in the patent, with all its virtues and faults. It should be understood all the time, that no full machine is described in the patent No. 2829, but that patent refers to the other, as indicating the machine which the inventor proposed to use in his novel supporting frame and connecting means.

Cross-q. 9. In Machine Exhibit No. 3, has the curved bottom of the yoke frame, or any part of such yoke frame, any guide for the clothes? And do the clothes, or any portion of them, come in contact with such yoke frame when the wringer described in division No. 2652 is used in connection therewith?

A. Under those conditions, the revolving part H (see patent No 2652,) lies between the clothes and the inner edge of the yoke frame, and the inner edge is therefore never allowed to serve directly as a guide for the clothes; I answer, therefore, that the curved bottom of the yoke frame is not, when that revolving part H is used, a guide; the edge is there in the curved form, and would serve as a guide, but the part H stands between it, and covers it. I should say that the clothes are liable to come in contact with the other parts of the yoke frame, but not so as to be important. If I understand the question, the curved edge—the curved form of the throat of the yoke frame, or in other words, the U form of the yoke frame, considered with reference to the rounding of the bottom of the U, is not of much consequence in forming a

137 proper guide, or aiding to perform a proper guide for the clothes, when the peculiar mechanism of the patent No. 2,652 is employed. I say not of much consequence; but I think it is still of some consequence, because the clothes are liable to kink, and move about irregularly in various ways, and if the bottom of the yoke were straight, leaving corners unfilled with wood, below the revolving clamp H, and

its attachments, such a form would not only afford a less desirable bearing for the part H, but would also involve a liability that clothes might frequently enter those holes—those open corners below the ring H, and would get entangled, and strained or torn; in short, the rounded form of the yoke frame does serve as a guide, but only in a small degree, except indirectly through the ring H, which runs within it.

Cross-q. 10. Thinking that you may have misunderstood the question, I will ask you again whether you mean to say that the clothes come into contact with the curved neck of the yoke-frame, when the wringing-machine described in re-issue No. 2652 is used in connection with such yoke? Please answer yes, or no, if you can.

A. No.

Cross-q. 11. Referring to both divisions of the reissue, 2652 and 2829, say whether you find it stated therein that any other than the described rotary clamp can be used in connection with the yoke-frame?

A. No; there is no specific statement to that effect.

Cross-q. 12. Is there any general or indefinite statement to that effect?

A. Yes. I understand that to be inferred from the use of the general or indefinite term "wringing-mechanism," which appear at short intervals throughout the entire specification, instead of the "revolving-clamp, H," or any other specific term pointing to the specific
138 wringing-mechanism; the general term "wringing-mechanism," I find ten times in the specification.

Cross-q. 13. Do you make the last answer with reference to re-issue No. 2829?

A. Yes. I have not attempted to count the terms in the other.

Cross-q. 14. Have you read the original letters-patent upon which these re-issued letters are based, dated July 27th, 1858? And state, if you have read the same, whether there is any assertion that any other wringing-mechanism than the rotary clamp described, can be used or employed with said yoke-frame.

A. I have read it; it contains, I think, no reference, directly or indirectly, to the practicability of using the frame with other kinds of wringing-mechanism, further than the general inference which any mechanic might draw from the construction.

Cross-q. 15. Do you find in such original patent the words "wringing-mechanism" employed?

A. No.

Cross-q. 16. Could the yoke-frame described and shown in re-issue 2829 be employed with any other wringing-mechanism of the roller variety, without alteration?

A. Yes.

Cross-q. 17. Explain how.

A. In many ways: one would be to fasten brackets permanently on one face or the other of the uprights S S 1, and make those brackets carry the shafts of the rollers; another would be, if you wished to remove the roller-mechanism with more facility, to fit the rollers in boxes of wood or other material, of large size, and make them fit over the uprights S S 1, the rollers being mounted in separate boxes, or the two corresponding ends of the rollers being mounted in the same box,
one above the other; I think my explanation is intelligible; it
139 supposes a large block of hard wood or some other material to form a bearing for each roller at one end, and a corresponding block to form a bearing at the other end, and each block to have a large mortice through it, just a little larger than the corresponding standard S, or S 1, so that it can fit over and slip down on it.

Cross-q. 18. It would require some inventive skill to do all that, would it not?

A. Yes; I think it would, to make a valuable machine in that manner; I think that it always requires invention to make any important modification which is an improvement; the fact of the improvement, coupled with the facts that it was not known before, and that the want existed before, establishes the fact of invention, and the amount of mechanical ingenuity required is not an overruling consideration. Now, the solving of a puzzling mechanical question like this, of producing a roller-wringer on this frame without any alteration of the frame, involves an exercise of mental faculties, much like guessing a riddle. A successful solution of the problem may involve ingenuity. It is perhaps settled, too, but I do not consider that it involves invention in the sense in which the term is used in relation to patents, unless the result embodies some improvement of importance in the arts; when the result does embody such an improvement, I consider that it contains invention, however easy the problem may have been to the inventor; the real or apparent difficulties, of making the improvement have little to do with the magnitude of the invention. I think it has not required invention in me to suggest the solution of this problem; if some one has already, unknown to me, or shall next year, or some other time, conceive and practically carry out a solution which makes a valuable improvement, keeping this frame unaltered, exactly in the form in which Sergeant left it, that effort has involved, or will have involved, invention.

140 Cross-q. 19. Referring to patent 2829, do you understand that if a person should make just the yoke-frame and clamping device described and shown in said patent, but should make no wringing-mechanism to be applied thereto, and should use no wringing-mechanism therewith, but should make only the structure described in re-issue 2829, that it would be any employment of the invention described and claimed in such re-issued patent?

A. Yes. The patent speaks about "when employed" particularly in the second specification of claim, but I take it to mean adapted to be so employed. I think the making of such a frame, with all its appurtenances and qualities, adapted to serve in the manner specified, as a connection between wringing-mechanism and a tub, or the sale or use of such a frame, or supporting and connecting apparatus, would be a making, or selling, or using of the construction set forth in the patent as the invention, or containing the invention. It would be a violation of the patent.

Cross-q. 20. The yoke-frame constructed precisely as shown in re-issue 2829, could be used as a support for a vise, slipped on to the same by means of brackets, as you have previously indicated with respect to a wringer, or it could be issued as a support for an egg-beater, or for a bobbin of yarn, or for an apple-parer, could it not?

A. Yes.

Cross-q. 21. If so used, would you find in the apparatus the invention described and claimed in re-issue 2829?

A. That follows, from my understanding the invention as being not a method of use of the thing, but the thing itself. If it were of so much larger size, or smaller, or made of materials too weak or which would not stand water, so that it would not be adapted to serve the function of holding up and connecting wringing mechanism to a tub or analagous vessel in the manner described, then although its form might correspond, I should be reluctant to say that it was the same yoke-

141 frame and clamping means described in this patent. But if it

had the forms of its several features, and their arrangement and relations, as here set forth, I think it would involve the invention, if used to support any of these articles named, or a telescope, or anything else, or was not used at all.

Cross-q. 22. I am to understand, then, from your answer to the previous question, that a little light yoke-frame would not be within the description contained in the patent, but that a big stout yoke-frame would be within the description contained in the patent, neither of those yoke-frames supposed being in fact used or employed with any wringing mechanism whatever, or employed in connection with a wash-tub?

A. The question somehow puzzles me. I can conceive a light wire frame, made of slender wire, lead-wire if you please, adapted to fit on the side of a flower-pot, and hold up plants in a parlor-window, which would have the arrangement of parts described in this patent, and yet from its feebleness would not serve on a tub to support wringing mechanism. Now, if such a frame or trellis lay on this table by the side of this frame in Exhibit No. 3, which happens at this moment to lie on the table with the wringing mechanism—the wringer H and its attachments removed—I should say that this—this part of Exhibit No. 3—is within the description contained in the patent, and that that slender wire trellis was not within it. I answer the question yes, one would contain the invention, and the other would not.

Cross-q. 23. Is not a yoke-frame, as a supporting instrument, and a clamping device, regarded by itself, an old structure?

I don't think of any now, nearer than the common arrangement for supporting a glass on a dressing-case or bureau, where two arms, coming up from below, and supporting pivots, or trunnions, at the sides of the frame or glass, are secured to the bureau by being united into
142 one, and reaching down through a hole in the top of the bureau, with a nut underneath. That is a sort of yoke, with uprights, corresponding to Sergeant's yoke B, and uprights S S 1; but the clamping device is so much different that it fails to conform to the conditions. I do not know of anything large or small, weak or strong, which has the yoke B, with uprights S S and the jaws C C 1, arranged as in this invention of a prior date thereto. The wire trellis imagined a few answers back was purely imaginary.

Since the subject has been talked of here, in the interval since the above was written, I indistinctly remember, or can imagine I have seen, a framing for jewelers' lathes and analogous lathe-work, to operate by a fiddle-bow, in which the shaft or arbor was supported in two uprights connected at the base, and provided with a clamping device with a screw. Such devices, if they existed, had the yoke with uprights too small to be adapted for supporting clothes-wringing mechanism; but the clamping means were large enough to fit upon a tub. The frame might be fitted upon one side only of a common wash-tub, and might be clamped there firmly; but the jaws and clamping means were not arranged as in this patent, because the jaws would stand horizontal when the machine was in position. The thing was only adapted to clamp on the edge of a shelf, or the edge of a work-bench, or the like horizontal thing, and when you tip the machine, so as to make the jaws take hold of the nearly perpendicular side of a tub, the uprights would lie down; that is to say, would extend horizontally inward or outward from the edge of the tub. In such case, they would not be uprights literally, and would not perform the functions of the uprights in this patent, even if they were large enough. If a wringer were constructed that way, with a frame thus projecting horizontally from the edge of the tub, it would

not serve. If it projected inward, the crank could not be turned if it were a roller-wringer, and the hitching or holding of the other end of the clothes would have to be down in the water if it were a twisting-wringer, which would be obviously impracticable. And if it extended thus horizontally outward from the edge of the tub, it would involve several difficulties, one of which would be the fall of the expressed water outside of the tub instead of inside.

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I don't know that such a yoke-frame, with jaws and clamping means for a lathe or the like, has ever existed, or that I have described it correctly, if something in that line has been known. I have dissected it on the supposition that it may be proved at some future stage. There are reasons to suppose that such existed about as I have described. I may add that there have been plenty of clamp-screws in jaws without the yoke-frame; joiners use great quantities in veneering and other glueing. If we put a joiner's clamp on the edge of a tub, the structure would extend a considerable distance above the tub, and there would be two parts to it above as well as below; but it would not be this yoke-frame, for the reasons, naming the smallest first, that it would not be large enough, the uprights would stand in line crosswise instead of flatwise, as they ought, with the edge of the tub, and that the uprights would open and close, and change their relations at the top, at each opening and closing of the clamping ends below. It couldn't perform.

Cross-q. 24. Are the rollers, pressure-springs and set-screws, in defendant's machine, Exhibit No. 1, substantially the same, or substantially different, regarded as a means for expressing water from clothes, with the rotary clamp twist-wringer, described in division re-issue No. 2652, and referred to in re-issue No. 2829?

A. Substantially different. They are both known varieties of wringing mechanism, but they are substantially different varieties; roller-wringing mechanism is substantially different from twisting-wringing mechanism.

Cross-q. 25. In Exhibit No. 3, suppose the standards S S 1

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were curved at the top, so as to be united, and embrace the rotary clamp fitted to the same; then would the frame supporting such wringing mechanism be substantially the same or substantially different from that described in re-issue No. 2829?

A. Substantially the same.

Cross-q. 26. In such case, would not the rotary clamp be a short, hollow shaft placed in a journal-bearing?

A. Yes.

Cross-q. 27. Have you compared the drawings attached to the original copy of the original patent, with drawings of the re-issue No. 2829?

A. Yes.

Cross-q. 28. State the difference.

A. In the re-issue, the peculiar framing, the rigid part which forms the supporting and connecting means, supporting the wringing mechanism, and connecting it to the tub, is represented exactly as before, with the tub as before, but with the wringing mechanism carefully left off; in the original the wringing mechanism is represented.

Cross-q. 29. Is not the swinging platform and its hinges, which support the hitching-pin, shown in the original patent, and also in division of the re-issue No. 2652, omitted in the drawings and patent re-issue No. 2829?

A. Yes. They are parts of the wringing mechanism. I imagine they were left out for that reason. The shoulder, or projection, which holds

up the platform and hitching-pin in a horizontal position, is represented but imperfectly, if at all. I think it was intended to omit that part also.

Cross-q. 30. Is not the only office of the swinging platform to support the hitching-pin and ledge G?

A. Yes; except as it may serve as a handle when it projects above the machine, in its folded condition. It is handy to carry the machine by.

Cross-q. 31. Is the platform referred to any more a part of the wringing mechanism than the standards of the yoke-frame, uprights S S 1?

145 A. Yes; it holds the clothes, and acts on them directly. It is one piece with the hitching-pin F and the ledge G. The yoke and uprights S S 1 are not in one piece with the clamp H, and its connections, which twist the clothes. I think it was legitimate in removing the wringing-mechanism, and leaving only the supporting and connecting means between the wringing-mechanism and the tub to remove that hitching-pin and the parts which are fast to it. It is a pretty fine-spun question to determine whether the hinges should have been left upon the uprights S S 1, or have been taken away with the platform. If I had engineered the re-issue, I think I should have left that part of the hinge which is fixed to the uprights S S 1, left them remaining on the uprights. It would have been a kind of exact justice to the subject, but I do not see that it would have made any difference to the result. There is much propriety in taking them off, as has been done.

(Counsel for defendant objects to all that portion of the answer after the words "twist the clothes," as irresponsive.)

Cross-q. 32. I observe in re-issue No. 2829, the following sentence, next preceding the claim: "In the clamping device of the invention, a wedge or set-screw, cam or spring, when having a bearing, so that when power is applied to them, they, in conjunction with the jaws, gripe the edge of the tub, as a vice may be used, in the manner and for the purposes set forth." Do you find in the original specification any reference or statement, or description that a set-screw, cam, or spring, can be so used, or any mention of such instruments?

A. No; the specification is a simple, clear, dry description of the precise machine which it represents. It gives no explanation of substitutes. There is no hint of these substitutes.

Adjourned to November 19, 1870, at 11 a. m.

146 NOVEMBER 19, 1870.

Present, Benjamin F. Thurston, esq., counsel for defendant.

The cross-examination of THOMAS D. STETSON is proceeded with—examined by Mr. Thurston:

Cross-q. 33. Please regard complainant's Exhibit No. 3, representing the yoke-frame described and shown in re-issue 2829, and having in addition the hinged frame and hitching-pin; and now please observe the same exhibit, since I have placed in the yoke-frame defendant's Exhibit B., consisting of a wheel, a neck-piece and a crank; state whether or not the uprights S S 1 perform the same or a different function that they do when the rotary clamp, described in re-issue No. 2652, is placed therein.

A. Partly different, but more, I should say, the same function. I will explain. They are uprights, and in the same relation to each other, to the cross-piece, and to the jaws for mounting on the edge of one side of

a tub, and there is wringing-mechanism mounted in them; they are adapted to receive as before, a wringing-mechanism which requires extended space between the uprights; they are adapted to receive mechanism which takes the clothes in through between the uprights; but the mechanism, Exhibit B, now mounted in this yoke-frame, which yoke-frame I say is the same as the patent, is not a kind of mechanism which requires such a yoke-frame; it is not a kind of mechanism which utilizes the advantages offered by this invention. The invention is there ready to afford the advantages peculiar to it, but the advantages are not availed of. Now, so far as the frame, relation, arrangement, strength, and all that, of the yoke-frame is concerned, and its adaptation to receive a wringing-mechanism requiring a large volume between the uprights S S 1 is concerned; and further, so far as its actual serving as a bearing for a capacious ring or short tube, (or hollow shaft, as
147 it was once called in one of the previous questions on this cross-examination,) so far as all these are concerned, and the revolving of a ring between the standards in the same way—in all this it performs the same function referred to or intended in the patent re-issue No. 2829. But so far as supporting a revolving wringing or any other mechanism, which is not only large enough to, but actually does, receive the clothes in the space between the uprights, *are* concerned, it does not perform the function of holding up such mechanism. This mechanism is a wringer-mechanism. The yoke-frame, in holding it up, allows it to perform. The yoke-frame has got the qualities set forth in the patent. It is capable of performing the functions expected of the yoke-frame in the patent. It does perform them in part, and it does in doing so perform the functions intended, to a certain extent, but it does not hold up a wringing-mechanism which takes the clothes in between the uprights. It does not perform the peculiar function which gives this invention its value, because it does not now support a proper wringing-mechanism. It does not support any wringing-mechanism which takes the clothes in and passes them through. The peculiar mechanism here is a very bad form of a previously known kind of wringing-mechanism; it is a kind which only requires a single post, or if there are two or more, they may be in line radial to the tub, with holes bored through them, like Sabin's or Wilson's. The use of this peculiar yoke-frame with such a mechanism is possible, as this contrivance, Exhibit B, shows, by very greatly enlarging the shaft of the twister, or by introducing, as in this case, a big wheel through which the shaft is fixed. But at a risk of too many times repeating, I will say that the uprights S S 1, while adapted to perform their peculiar function, which gives the invention value, of supporting a suitable wringing-mechanism, does not perform that peculiar function when thus equipped.

Cross-q. 34. Refer now to the first specification of claim of re-
148 issue patent No. 2829, which is in the words following: "The employment or use of a portable frame or yoke B, with uprights S S 1, or their equivalents, for supporting a clothes-wringing mechanism in position, on one side of a common wash-tub for the purposes set forth," and state whether the structure, complainants' Exhibit No. 3, and defendants' Exhibit B, being mounted therein, is or is not, in your opinion, within such specification of claim.

A. It is within it.

Cross-q. 35. Please look now at defendants' Exhibit C, and state whether the frame is or is not within the description contained in both specifications of claim of re-issue patent No. 2829?

A. Yes, it is; there is a want of adaptation to the curvature of any common wash-tub in the parts which represent the jaws, C C 1, but it seems to me to be an imitation of the invention, adapted to a rectangular vessel. It seems to be a badly constructed specimen of the yoke-frame, with uprights and jaws described in the patent.

The only question in my mind is with regard to the jaws C C 1. The uprights S S 1 are a little different from those in the patent. They are partly grooved, and on the other portion—the lower half—the flanges of the wheel or revolving ring are received within the thickness of the uprights, instead of, as in the patent, projecting beyond the faces; but these differences do not give me any trouble. The uprights are the equivalents of the uprights S S1 in the patent. So the cross-piece which joins the uprights in this defendants' Exhibit C is heavier and higher than in the patent; and there is a screw as a clamping means to tighten the grip of the jaws, instead of a wedge, which latter is the particular clamping means shown in the patent. Now, this screw being naked or unprovided with any shoe at the end, would be liable to abrade and deface, or possibly bore a hole into the tub, which would be a damage, and go to defeat the object of the invention. But I find little
149 trouble on those points. I pronounce them equivalent to the corresponding parts in the patent No. 2829. My only question is with regard to the similarity of the jaws. This machine presents the jaws in a condition which would not match on an ordinary tub without alteration. If the jaws were narrower they would match, or if, being as wide as they are now, they were made more open—I mean with more space between the part C and the other or opposite jaw C 1—they would then match on an ordinary tub; or if they were opened in the middle, or made into two sets of such jaws, as is now commonly practiced in clothes-wringers, they would then match. As they are, they would not match on an ordinary tub. I say that squarely.

But, then, it is not such a hybrid between this and any previous invention as to raise any doubt in my mind in regard to its being an imitation or modification of the jaws C C 1. No jaws of any kind standing crosswise to an open yoke-frame above, like this, had been known before. I pronounce it an adaptation of the peculiar frame described in the patent to fit on washing-machines and other rectangular vessels, and with this qualification, now I think, clearly set forth on the record, I say the thing is substantially the thing set forth and defined in the first clause or specification of claim, and also in the second clause or specification of claim in the patent re-issue No. 2829.

Cross-q. 36. In short, do you not, by the last answer, mean to be understood as saying in substance and effect that the peculiarities of construction which you have pointed out as characteristic of Exhibit C are formal, and not substantial, when the whole structure is put into comparison with the structure shown in the drawings attached to re-issue of patent No. 2829, and the description explanatory of the same?

A. No, I would not say that. I would say it about all the other points except the jaws C C 1; there the modification is so serious as to completely defeat one of the ends which is made essential to the machine in the patent, and yet, for the reasons I have shown, I consider it
150 a mere alteration of the structure of the invention—an alteration not altering it into something known before, but altering it into something new, which so far resembles the patented frame as to be merely an adaptation of it to another use. I think it is not an old framing known before this invention, nor an entirely new framing independent of this invention, but a modification involving what I consider an

imitation, or a deformed, or improved, if you please, specimen of the peculiar framing for supporting a clothes-wringing mechanism and connecting it to a common wash-tub set forth in the patent as the invention.

Cross-q. 37. Do you consider it essential, that a common, round wash-tub, as distinguished from a rectangular wash-tub, commonly called a set tub, should be used in connection with the invention described in re-issue No. 2829; and that the machine described in re-issue No. 2829 must be adapted to fit a round tub, in order to be within the invention described in said patent?

A. There are two parts to the question. I consider it important that the thing be adapted to fit on a common wash-tub; I have just dissected at some length this case. however, this defendants' Exhibit C, where I pronounced it as containing the invention, although so modified as not to fit. It certainly is not essential that the tub or any analogous vessel shall be actually used in connection with the framing, to produce the thing set forth as the invention; the only essentials are the adaptations. The machine may be made and sold independent of any tub, and the structure would all the time contain the features constituting the invention; and it may be used on a square tub, or a barrel, or a board-fence, or you may hold it on your knees by main strength, and work it. It is its adaptation to fitting on the tubs, and not its combination with an actual tub, which makes the invention. I may add, that its advantages will not be availed of over other wringing-frames or supporting means known before, except when it is fitted on a common wash-tub or
151 some analogous vessel, without requiring a previous preparation of the vessel.

Cross-q. 38. Is not Exhibit C adapted to fit on both a round tub and a rectangular tub?

A. It fits on a rectangular tub, if the tub is thin enough, perfectly. It would fit on a round tub if the material were very thin, and the diameter very large. The opening between the jaws is scarce one inch, and the width of the jaws is twelve inches. Now it would require a tub of either very large diameter, or very thin material, or both, to allow this to fit on it, and if it were very thin, the pinching-screw, acting against the outside of the tub, where it is unsupported, would be likely to spring, or bend, the thin material. I can imagine a tub, or round vessel, of cast iron, one quarter of an inch thick, and six feet or more in diameter, that that thing would match on to, and perform very well on, but I will say briefly, that it is not at all well adapted to fit on a round tub of any ordinary material. I think I may say it is not adapted at all to fit on such a round tub.

Cross-q. 39. Suppose complainants' Exhibit No. 1 (full sized defendants' machine) had its holding jaws and clamp constructed like the holding jaws and clamp in Exhibit C, the said machine—Exhibit No. 1—being in all other respects unaltered, would or would not such machine be within the description contained in re-issue No. 2829? And if you can answer the question, yes, or no, please do so?

A. Yes, for the reason set forth at length in answer to cross-question 35.

Cross-q. 40. Please observe defendants' model, Exhibit B C, now that I have attached thereto the part marked Exhibit D. The addition of Exhibit D, filling the space between the upper parts of the uprights, substantially as supposed in cross-interrogatory 25, does not in any respect alter or affect the functions which the uprights S S 1 and the jaws C C 1 perform, does it?

152 A. No; not to the extent of destroying their indentity with the

corresponding parts described in the patent. If the piece Exhibit D simply lies loosely it performs no functions of importance, except by its trifling weight. If confined it does in some respect alter the functions. It holds down the crank-shaft and its attachments, and prevents its being lifted by any strong upward pull which might be given to the crank in operating the wringer, and in that point would be an improvement. And it obstructs the ready removal of the crank-shaft and its attachments to repair, or clean, or dry the parts, and in that point would be an incumbrance. But the uprights S S 1 are substantially indentical, with that addition or without it.

Cross-q. 41. Does not defendants' Exhibit D perform precisely the same function or office as that which is performed by the keeper-strap which is attached to complainants' Exhibit No. 3, now that I have secured the piece Exhibit D to the uprights by means of screws?

A. Yes, and more. It stiffens and braces the uprights better, and holds the large revolving part down better, and affords a better bearing against any upward strain. It is a better thing for these purposes than what is called in the question the keeper-strap, in complainants' Exhibit No. 3.

Cross q. 42. Both the keeper-strap in Exhibit No. 3 and the piece Exhibit D prevent the wringing-mechanism from being lifted out of the frame, do they not?

A. Yes.

Cross-q. 43. Some such device is necessary for the best practical operation of both machines, is it not?

A. No, I don't think it amounts to anything on the Sergeant machine, complainants' Exhibit No. 3. It is of some consequence on this defendants' Exhibit B C D.

Cross-q. 44. Please look at the letters-patent granted to H. W. Sabin, dated August 16, 1845, and state whether you find therein shown
153 a wringing-mechanism X, and a clamping device consisting of a pair of jaws and a clamp-screw?

A. Yes.

Cross-q. 45. Do you not understand, from an inspection of the drawings attached to said patent, that it is intended that the end of the clamp-screw, forming a part of the clamping device, shall bear against the side of the vessel to which the wringing-mechanism is attached?

A. Yes, I do understand it to thus bear.

Cross-q. 46. How otherwise, except in the form and proportions, does the standard and wringing mechanism shown in defendants' Exhibit B C D differ from the wringing-mechanism shown in the H. W. Sabin patent referred to?

A. I must make this answer pretty long. Roughly, to commence, it does not differ, except in form and proportions. There is some little difference in the letting in of the flanges of this peculiar revolving ring in this defendants' Exhibit B C D, to which I have before referred, and in which I see no resemblance to any other machine. I cannot let it pass without notice in comparing it with Sabin's, not because the letting in of the flanges involves any important point, but because the existence of them, and their matching with the standards, involve a function of some consequence. Otherwise I may repeat that, with the exception of the absence of an important part of the holding mechanism in Sabin's—a loose piece, movable in the shovel-handle—the part which takes hold of the clothes in twisting, and which I presume to be understood as intended to be used in this mongrel machine, B C D. The difference is in proportions and in forms.

Both machines wring by the same action. Both machines attach to the tub by similar means. They are the same machine, in brief.

154 But the wringing-mechanism, and the parts which together represent the standard, are in this machine, defendants' B C D-greatly changed from the Sabin machine in forms and propor, tions, and the changes are for the worse. There is much more friction, and the machine is much more bulky and heavy than the Sabin machine to perform the same work.

Considering the standard of the Sabin machine as enlarged into this thing, defendant's B C D, it is all a modification for the worse. But there is another use to which such a standard may be put, which makes it, considered as a part or means for supporting wringing mechanism, a great improvement. The magnitude, the change of form and proportion, adapts it to receive other wringing mechanism, by which its virtues may be brought out and made evident. Sabin's mechanism was supported on a small standard. It appears to be rectangular in section, neither extended more in the direction of the circumference or in the direction of the diameter of the tub. His drawings show it as a plain, square post, with an auger-hole through it sufficient to receive a shaft. This was all that was wanted for Sabin's purpose. But this machine, defendant's B C D, has what corresponds to that post very greatly elongated in the direction of the circumference of the tub, and the hole is very greatly enlarged. This, while a damage, I will repeat, to its performance with the particular mechanism Sabin employed, is an advantage in connection with various other kinds of mechanism. It is an advantage in allowing the introduction of mechanism which takes the clothes within it.

It allows the employment of the revolving ring with a clamp, forming a twisting wringer of the character that Sergeant referred to in his patent 2829, as fully described in the patent re-issue 2652, and shown in complainants' Exhibit No. 3, or a roller wringing mechanism, or perhaps various others where Sabin's small part and small hole through it could not be used. The change is very obvious in its effects on the operation of the mechanism. I refer now to the change in the post called

155 in the question the "standard." In the Sabin machine the standard is adapted to support that particular mechanism well. In this machine, defendant's B C D, the "standard" is a badly constructed example of Sergeant's yoke frame and clamp, and the change nearly or quite ruins it for Sabin's mechanism, but splendidly adapts it to perform new functions, which Sergeant's small square post could not perform in supporting other wringing mechanism in a very desirable relation to the tub.

Cross-q. 47. Suppose, in the wringing mechanism shown in the Sabin patent, the shaft to which the wringing neck is attached was set in boxes in the same manner that shafts of steam-engines and other shafting are frequently set, would the apparatus be thereby *be* made substantially different, regarded as a wringing apparatus?

A. No.

Cross-q. 48. Describe in short terms how the shaft of a steam-engine or other shafting is commonly set in a pillow-block having movable boxes and a cap.

A. A box, having a semi-cylindrical interior, is let down into a square recess, and a similar box, the other side up, sits on top of it, held down by a cross-piece or binder.

Cross-q. 49. Such recess is formed by two uprights, is it not?

A. Frequently. Sometimes it is recessed down into the body of the

frame. In other machines, and more usually, the boxes are held down in a part called a pedestal. The parts each side may in the latter case be termed uprights, but they differ materially from the uprights S S¹ in this patent.

(Last clause of answer objected to as irresponsive.)

THOMAS D. STETSON.

Sworn to before me.

GEO. F. SEYMOUR,
Notary Public and Examiner.

(The models referred to are produced by counsel for defendant, and are marked by the examiner as defendant's Exhibits B, C, and D, respectively.)

156 United States circuit court, district of Rhode Island.

METROPOLITAN WASHING-MACHINE COMPANY, complainant,
against
PROVIDENCE TOOL COMPANY, DEFENDANT. } In equity.

It is hereby agreed that Stephen A. Cooke, jr., may take the depositions of witnesses for either party in Rhode Island, as special examiner under the amendment to the 67th rule in equity of said court.

JAMES H. PARSONS,
For Complainant.
BENJ. F. THURSTON,
For Defendant.

157 Circuit court of the United States for the district of Rhode Island.

THE METROPOLITAN WASHING-MACHINE COMPANY, complainant,
against
THE PROVIDENCE TOOL COMPANY, DEFENDANT. } In equity.

Testimony taken on the part of the defendant, before me, Stephen A. Cooke, jr., a notary public for the city and county of Providence, State of Rhode Island, duly commissioned and sworn, and a special examiner agreed upon by said parties. Said agreement authorizing him to take testimony is hereto attached.

PROVIDENCE, *Dec.* 27, 1870—10 o'clock a. m.

Present, Benjamin F. Thurston, esq., counsel for defendant, and James H. Parsons, esq., counsel for complainant.

HENRY B. RENWICK, a witness called for the defendant, being duly sworn, deposes and says:

Examined by B. F. Thurston, esq., counsel for defendant:

Q. 1. What is your name, age, residence, and occupation?

A. Henry B. Renwick; age fifty-three; reside in the city of New York. My principal occupation at present is the examination of machinery, processes, and patents, and am frequently called as an expert in patent causes in the circuit court of the United States.

158 Q. 2. Have you examined a copy of the original letters-patent granted to Isaac A. Sergeant, dated July 27, 1858, No. 21029, for an improvement in clothes-wringers? If yea, please describe the invention and improvement therein set forth.

A. I have examined the printed copy of it in the record of this case, page 32, &c., and the drawing which, I am informed, was made in the Patent-Office, and which I now produce.

(Witness produces drawing marked by the examiner—"Exhibit E, Stephen A. Cooke, jr., examiner.")

There are several things described in this patent as the invention of Sergeant, which are set forth in the claim pertaining to the patent, the contrivance described in the patent being, in brief, a twist-wringer, consisting of a turning-clamp and a hitching-pin mounted in a frame, so that it can be attached by means of a clamp to one side of a wash-tub. In this wringer, like other similar wringers, three things are essential, viz: the revolving contrivance for putting the turn or twist into the clothes: the journal-box for that contrivance to turn in; and the hitching-pin, marked F in the drawings of the original patent, for holding one end of the material being wrung. This hitching-pin, or some substitute for it, is an essential part of wringing mechanism of this class, whose operation is to give the clothes a more forcible wring or twist than can be given by hand, and therefore they need that the end of the clothes which is held stationary should be more firmly confined than they could be by being grasped in the hand.

In the contrivance described in the patent, the hitching-pin is fastened upon a horizontal frame, marked E in the drawings of the original patent, which is attached to the upright part of the frame marked B, and by reason of the attachments of these two parts of the frame, the frame of the whole wringing apparatus can be attached by clamps
159 to one side of the tub, (as termed in the patent,) and no strain is imposed upon the tub itself during the operation of wringing, the whole strain being taken upon the frame.

Q. 3. Have you examined the two re-issue patents for this invention, numbered, respectively, 2652, June 18th, 1867, division 1, and No. 2829, dated Dec. 31st, 1867, division 2, and the drawings attached to the same? If yea, please state what differences exist between the drawings of said divisions of the re-issue and the drawings belonging to the original patents marked Exhibit E, and in making the comparison give particular attention to the construction of the yoke-frame as exhibited in the original patent in division 2652 and division 2829.

A. I have examined the papers referred to in the question, with the drawings. The drawings in re-issue No. 2652 correspond with figures 1, 3, and 4 of the original patent, one not appearing to have been traced from the other, as far as figures 1 and 2 in the re-issue are concerned. Figure 3 of the re-issue differs slightly from figure 4 of the patent, but is substantially the same. Figures 2 and 3 of re-issue No. 2829 are substantially the same as figures 3 and 4 of the original patent, although not precisely the same.

Figure 1 of re-issue No. 2829 differs from the drawings of the other re-issue, and from those of the original patent; and the wringer described in the original patent, and in re-issue No. 2652, could not be supported and worked upon such a frame as is represented in this figure 1 of No. 2829. In the first place, the horizontal frame E of the original patent, which holds the hitching-pin, has been removed from that frame, as also the ears, lettered *c*, by which the horizontal frame is attached to the upright one. In the second place, the standards marked S S' in No.

2829 have both been lengthened, and the lengthening of one of them prevents the application of the pawl marked P in the original patent.

In the original patent, one of the standards shown as figure 1 is higher than the centre of the rotary clamp, but not as high as
160 the top; the other is lower than the top of the clamp; while in figure 1 of re-issue No. 2829 each of the standards S S^1 is shown about three-quarters of the diameter of the clamp higher than the top of it. The removal of the horizontal frame takes away the support of the hitching-pin which is a part of the wringing-apparatus, and therefore the wringer can no longer be used as described in the original.

Q. 4. Referring to drawings of division No. 2652, at what part of the yoke-frame is the pawl P attached?

A. It is attached close to the top of what has been called one of the standards, its pivot being, as near as I can judge, a little above the centre of the rotary clamp. This pawl is a bent piece of iron, and its acting part or tooth lies between the beveled top of the standard and the cylindrical part of the rotary clamp. In order to apply this pawl in the manner it is represented as being applied to figure 1 of re-issue No. 2829, it would be necessary to cut a notch in the standard, and no such notch is shown in the drawing of No. 2829.

Q. 5. Referring to division 1 of re-issue No. 2652, state whether the hitching-arm E, and hitching-pin F attached thereto, is or is not an essential part of the wringing-mechanism described, with reference especially to the object which the inventor declares that he has in view?

A. As I have said before, a hitching-pin, or some substitute therefor, is an essential part of this class of wringers. Unless there be a hitching-pin, or some substitute for it, the clothes cannot be twisted more forcibly than they could be by hand, because the force required to prevent one end of the clothes from turning must be as great or nearly as great as that which is exerted to twist them. If one end of the clothes was held in the hand, they could not be more completely wrung by the machine than they could be in the operation of wringing clothes in which the turn or twist is produced by the hand unaided by machinery. The patent describes the clothes as held not only by the hitching-pin,
161 but by the assistance of the ledge G, and the statement in the patent is that the clamp supports the wringer in such manner that neither the clamp nor the tub are required to sustain any part of the "severe tensional strain" produced in wringing. The contrivance acts in this way solely because the hitching-pin and rotary clamp are supported upon the same frame, and therefore there is no tendency either to injure the tub or to strain or twist the clamp. If the hitching-pin were not attached to the frame which supports the rotary clamp, but were attached to the tub, then both the tub and the clamp would have to resist the "severe tensional strain" produced in wringing.

Q. 6. Describe the function or office which the yoke B in the Sergeant patent performs.

A. The yoke B, as described in the original patent and in the re-issue No. 2652, is a semicircular cavity cut in a board, one side of it being prolonged so as to rise nearly to the top of the circular part of the rotary clamp. I see no use for this prolongation, nor do I see that it performs any office in the operation of the contrivance. The semicircular cavity is, in the machine, a journal-bearing or box in which the circular part of the rotary clamp revolves. Its sole purpose is to support this rotary clamp in such manner that it may be revolved just as any ordinary shaft is revolved in its box, and in order to

do its work properly the cavity should be a portion of a circle. Besides supporting the weight of the rotary clamp, the yoke B also prevents the clamp from being pulled up to the hitching-pin. It does this because the piece A^1 bears against the flat side of the yoke, and the flat side of the yoke furthest from the tub must be smooth, in order that the surface of A^1 may revolve over it. Without this piece A^1, or some equivalent for it, and such construction of the yoke as will enable A^1 to revolve over the side of it furthest from the tub, it will be impossible to use the wringing-machine described in the patent.

162 Q. 7. Please look at the defendant's wringer, (marked in this case complainant's Exhibit No. 1,) and state whether you find therein a yoke-frame corresponding with the yoke-frame B, as represented in the original patent and division of re-issue No. 2652, performing the function or office of the yoke-frame described in said patents and shown in the drawings.

A. I do not. The yoke-frame shown in the patent and re-issue is a journal-bearing to support a hollow shaft or collar, and to prevent that shaft from having any end play during the operation of wringing.

In complainant's Exhibit No. 1, being the defendant's machine, there is a frame which, if stripped of its rollers and springs, and if one of the standards were sawn off about the level of the upper roller, would, to a person merely looking at the shape of the two objects, bear some resemblance to the yoke B. This frame would not serve to support such a wringer as is described in the patent and re-issue referred to. The rotary clamp would drop down between the two cross-bars of the frame, and the piece A^1 could not be put in position at all. The cross-bars in the defendant's frame are used for the purpose of fastening the uprights together and guiding the clothes towards the centre of the roller, whereas the bottom of the yoke in the patent and re-issue supports the weight of the clamp, permits it to revolve, and does not guide the clothes at all. In fact, the clothes cannot possibly touch it during the operation of wringing. The boxes in which the rollers of defendant's machine turns, and which, in their office of supporting the rollers, are like the yoke B, and in that respect like any ordinary journal-box, are four in number, and are set so that the rolls which turn in them occupy a position at right angles to that occupied by the axis of the rotary clamp. One set of these boxes, moreover, slide, as do also the wooden springs, in mortises made in the frame. These mortises are essential to the construction and operation of the wringer made by the defendant, and no such mortises are shown or described in the patent and re-issue referred to, and if made, they would serve merely to weaken the yoke, without producing any good effect.

163 Q. 8. State whether every journal-bearing for a rotary shaft or rotary collar does or does not, of necessity, involve a yoke-frame, performing the same functions as the yoke-frame B in the patents previously referred to?

A. The lower half of every journal-bearing is a yoke-frame like the yoke-frame B in the patents referred to, acting to support the shaft, whether solid or hollow, and permitting it to revolve. When the shaft has a collar upon it acting like the piece A^1, then the ordinary journal-bearing prevents end-play in the same manner that the yoke B does.

Q. 9. Please refer to the first specification of claim of re-issue patent 2829, and state whether you find any jaws or clamping vise contained in the improvement therein claimed.

A. This claim is to the use of a portable frame or yoke B, provided with uprights S S^1, or their equivalents, for supporting a clothes-wring-

ing mechanism, etc., etc. One of these uprights S S[1], as I have said before, is shown in the drawings of the original patent as shorter than the other. The yoke is that part of the contrivance which bounds the semicircular cavity. The uprights are the portion that extend above the horizontal diameter of the cavity. I think that the claim is to the combination of the yoke and uprights, so as to support a wringer in a manner described in the other branch or division of the re-issue which is referred to in the patent, and if it be not for the purpose of supporting a wringer as there described, there is no description whatever of the manner in which the yoke and uprights are to support a wringer. In my opinion, the clamping device is not included among the devices claimed in combination, in the first claim of re-issue 2829. The yoke and uprights will support the rotary part of the wringer, and permit it to turn and also be removed for the purpose of cleansing, without the clamps; and it appears to me that the intent of the claim is to include the yoke
164 and uprights only so that a constructor who screwed or otherwise attached the yoke and uprights of the patents to the side of a wash-tub would be held to use the patentee's invention.

Q. 10. Please examine a certified copy of Harrison Hagans' patent, dated July 5, 1845, and, referring to the apparatus for expressing water from clothes, shown therein, compare the same briefly with the apparatus shown in the Sergeant patent 2652, and with the defendant's machine.

A. I have examined the Hagans patent several times. He describes two uprights, each of which, as I understand it, is mortised like the defendant's, and are provided with a cross-bar below the lowest roller. They also have an upper cross-bar, and the uprights support the roller in the same way that the defendant's upright does. They are substantially like the defendant's, and substantially different from the yoke frame and uprights in the Sergeant patents, it being obvious that the uprights and cross-pieces of Hagans' could not support and permit to revolve a rotary-clamp.

Q. 11. Please look at certified copy of letters-patent granted to H. W. Sabin, August 16th, 1845, and state whether you find therein a clamping-device and jaws substantially the same or different from the clamping-device or jaws that are found in the defendant's machine.

A. I have examined that patent several times, and the clamping-device therein described is like one of the clamping-devices, and one set of the jaws, in the defendant's machine.

Q. 12. State whether such jaws and clamping-device shown in said Sabin patent is substantially the same as the jaws and clamping-device shown in the original Sergeant patent and the re-issues.

A. Substantially the same.

Q. 13. State whether jaws and a clamping-device have been known for many years as a substitute for screws, nails, and other me-
165 chanical devices for securing machines and structures of various kinds in position to furnish them with a temporary fixed support.

A. They have been known for many years. I have seen jaws and clamp-screws applied to vises, pin-cushions, reels, sewing-machines, apple-parers, camera-lucida, etc., etc.

Q. 14. Please refer to the H. W. Sabin patent of August 16th, 1845, and state what description of wringing-mechanism you there find; how the same is supported and attached to the tub or vessel, and whether you find a yoke-frame for supporting such wringing-mechanism substantially the same or different in character from that shown in the original Sergeant patent and division No. 2652.

A. The wringing-machine described in the Sabin patent consists in part of a revolving-shaft, having on one end of it a crank, and on the other a contrivance to which one end of the clothes to be wrung may be secured. The other part of the wringing-contrivance is, as far as I can understand, a pair of rollers, one of which is fluted, which serve as a substitute for the ordinary hitching-pin, and between which the other end of the clothes is clamped and held fast. It wrings by precisely the same mode of operation as the Sergeant machine, viz, by twisting the clothes as the strand of a rope is twisted.

The revolving shaft of Sabin, with the contrivance in which one end of the clothes is secured, is supported in a journal-bearing, in which it turns just as Sergeant's rotary-clamp is supported and turned, and the shaft is prevented from moving endwise by a collar secured upon it, just as the plate A[1], secured to the hollow shaft of Sergeant, prevents end-play of that hollow shaft; the collar of Sabin bearing against the back of his journal-bearing, just in the same way as the plate A[1] of Sergeant bears against the back of the yoke B. The journal-bearing of Sabin is precisely like the yoke-frame of Sergeant, in so far as it supports, permits to revolve, and prevents the end-play of a
166 shaft, but is not cut open at the top as Sergeant's is, so as to permit of the removal of the rotary part of the wringing-mechanism. This yoke-frame, if it may be so called, of Sabin, is attached to the side of the tub by jaws and a set-screw, substantially as Sergeant's is, and there are but two differences between Sabin's and Sergeant's supporting mechanism. One I have already stated, viz, that Sabin's is closed at top so that the rotating part of the wringer cannot be lifted out. The other is, that Sabin's has no horizontal frame E serving for the support of the hitching-pin through the intervention of the yoke-frame. In consequence of this latter difference there is a "severe tensional strain" upon Sabin's clamp, tending to twist the yoke-frame over the side of the wash-tub, which does not exist in the operation of the Sergeant machine.

In Sergeant's machine the whole wringing-mechanism (hitch-pin and rotary-clamp) is supported from the yoke-frame and attached by the clamping-device to the side of the tub, when the contrivance is constructed as shown in the original patent. In this feature, and in the cutting away the top of the journal-bearing, it differs from Sabin's, and in those features only, if the peculiar construction of the rotary-clamp is left out of the question. If Sabin had shown a hitching-pin secured to a board which was spiked fast to the upright marked X, he would have supported his wringing-mechanism on one side of the tub and would have avoided the strain upon the tub and upon the clamping-device in the same way as Sergeant does.

Q. 15. Referring now to re-issue 2829, upon which the bill in this case is filed, do you find that the platform E and its hitching-pin F are removed from the oak frame, and, if you do find that they are so removed, state whether, if a rotary-clamp like that shown in re-issue 2652 were placed in such yoke, there would be any hitching-pin in the apparatus?

A. The platform E and its hitching-pin are not represented at
167 all or described in re-issue 2829. That drawing and description would not lead to the inference that they ever existed. When they do not exist there would, of course, be no hitch-pin, and no means of supporting it.

Q. 16. When the structure is arranged as supposed in the preceding question—that is to say, the rotary-clamp placed in a yoke-frame of the character shown in re-issue 2829, having no horizontal frame and hitch-

ing-pin, what remaining difference is there between the supporting and clamping-device in Sabin's patent and the corresponding devices in Sergeant's?

A. There is no difference, except that Sabin's cavity for supporting the revolving-shaft is closed over at the top, so that the shaft cannot be lifted out, whereas Sergeant's is cut open, so that the revolving-clamp can be lifted out at the top. If Sabin's supporting-device had the top cut out down to the journal, two long arms or uprights would be formed.

Q. 17. Answer the previous question on the supposition that the Sergeant machine was further altered by having an iron strap secured to the yoke at both ends, so as to prevent the revolving-clamp from being lifted out of such yoke.

A. If the horizontal frame and hitching-pin be removed in the Sergeant machine, and the top of the yoke be closed up, then there will be no difference between his supporting and clamping-devices and those of Sabin.

Q. 18. Are wringing-machines of the roller variety, of which the defendant's machine is an example, in their operation capable of exerting the severe tensional strain which is the subject of remark in re-issue 2652, when the patentee is speaking of the previously-known twist-wringer machine?

A. They are not capable of exerting any such strain unless one end of the clothes is hitched fast, and, if so hitched, they could not be wrung in roller-machines.

Adjourned to December 28th, 1870, at 10 o'clock a. m.

168 PROVIDENCE, *December 28th*, 1870—10 o'clock a. m.

J. H. Parsons, counsel for complainant, being present, but no appearance on behalf of defendant being had, the examiner adjourned to December 29th, 1870, at 10 o'clock a. m.

PROVIDENCE, *December 29th*, 1870.—10 o'clock a. m.

Present—same counsel, B. F. Thurston, esq., for defendant, and J. H. Parsons, esq., for complainant.

Examination of HENRY B. RENWICK is proceeded with as follows:

Q. 19. Please look at the model now shown you, (marked defendant's Exhibit F, S. A. Cooke, jr., examiner.) State whether the same was made under your direction, and what is the same intended to illustrate?

A. It is a full-size model of the standard, with the jaws and clamps for holding it on the edge of a wash-tub, and of the rotary or twisting part of the wringing-apparatus represented at letter X in the drawings of Sabin's patent. I found no scale on the drawings, but took the table there shown as being of the ordinary height, viz, about two feet nine inches, and found that the drawings were made on a scale of between one-thirteenth and one-fourteenth of the natural size, and I then ordered a carpenter to make an exact model in every respect from the drawings, but fourteen times as large as the drawing. I have no rule with me, but I can see by my eye that the proportions are not exactly correct; for instance, the journal-box, or hole for the shaft, is too near the top of the standard.

Q. 20. You will observe that I have removed from the standard
169 the wringing-neck, collar, and crank, and have attached to the standard in place of the part of the wringing-mechanism re-

moved, defendant's Exhibit G; please state what the model, as thus arranged, exhibits and illustrates.

(Defendant's Exhibit G produced and marked "Defendant's Exhibit G, S. A. Cooke, jr., examiner.")

A. It is a small wringing-machine, in all respects substantially like the defendant's, except that the device for clamping it to the side of a wash-tub has been sawn off. One of the cross-pieces usually found in the defendant's machine is not on this one, but that does not substantially alter its character. The cross-piece, further, has a straight top, with two pins projecting upwards on it, between which the clothes are guided to the centre of the wringer. These pins are a well-known substitute in wringers for the concave surface of one of the cross-pieces.

Q. 21. State how, if at all, the standard with jaws, journal-hole, and clamping-device of defendant's Exhibit F, when the turning part is removed, differs from the portable frame or yoke B, with uprights S S, described in re-issue patent No. 2829?

A. It does not differ at all except that the journal-box is closed at the top. If the piece of wood bounded by pencil lines in defendant's Exhibit F be sawn out, the two structures would be substantially identical in all respects; the sawing out of this piece in defendant's Exhibit F would permit the rotary part of the wringing-apparatus to be lifted out, and that is the only effect produced by sawing out the piece of board which once closed the space between the uprights of complainant's Exhibit No. 3.

Q. 22. Look at defendant's machine, and state whether the alleged yoke-frame and uprights are closed at the top, and also state whether there is any provision for the removal of the wringing-mechanism by lifting the same out of the alleged yoke and uprights?

170 A. They are closed at the top, and there is no provision for lifting out the wringing-rollers and spring without first removing the cross-bar which closes the top.

Q. 23. Is it or not essential to the operation of the defendant's machine that the alleged yoke and uprights should be closed at the top?

A. It is essential, because if they are removed there would be no support for the screw which is the resisting point of the spring, and if that screw or its supports be taken away the machine will not wring at all.

Q. 24. Assume that the defendant's machine contains the improvements described in the re-issue patent 2829, and recited in the claims thereof; upon that hypothesis state whether the structure shown in defendant's exhibits F G, the same being the Sabin standard with jaws and clamping device, and a pair of wringer-rolls with supporting frame, etc., attached thereto, comprehends and contains the invention set forth in said re-issued patent, and recited in the claim thereof.

A. It does.

Q. 25. Please look at complainant's Exhibit No. 3 (Sergeant's wringer) and state, with reference to the drawings, upon what scale the same seem to be made, and whether there is any authority for assuming that an ordinary full-sized washing-machine is of the size of complainant's Exhibit No. 3. State further, from an inspection of the machine, wherein, if at all, it is not a faithful representation of the machine shown and described in the original patent, or in the re-issue 2652.

A. I cannot find in the plaintiff's re-issue any clue from which I can ascertain upon what scale the drawings are mrde. The drawings show the hitching-pin about the middle of the wash-tub, but the size of a wash-tub is very indefinite, so that that cannot be taken as a basis for a scale. The aperture through the collar or revolving hollow shaft is much larger

than is necessary for any usual sheets or blankets. The width across the standards is about the same as the width across standards
171 of the defendant's machine. The model is very inaccurate in form, proportion, and structure, but as a whole is not substantially different from the machine represented in the drawing of re-issue No. 2652. The hole through the shaft is in the model like an arch doorway, instead of being a circle. The leg of the yoke upon which the pawl P is supported is, as near as I can judge by the eye, almost two inches too long, and the pawl has been altered in form so as to work when attached near the top of this elongated leg. The horizontal part of the frame which supports the hitching-pin is attached to the vertical part of the frame, at a point more than two inches higher than it ought to be. The keeper of the latch is secured to one of the clamping-jaws, instead of to the square collar making part of the rotary clamp, as it ought to be. There are also other differences, but all these differences of form, proportion, and construction are similar to those I have known to occur when a workman has been ordered to follow a drawing.

Q. 26. Referring to the drawings of the original patent, or to the drawing of re-issue 2652, and assuming the diameter of the tub A to be twenty-two inches, what, upon that scale, would be the diameter of the circular aperture of the rotary clamp shown in the same drawings?

A. I have now a tape-line, and by its aid am able to state that the diameter is about seven inches.

No cross-examination.

HENRY B. RENWICK.

Sworn to before me.

STEPHEN A. COOKE, JR.,
Notary Public & Special Examiner.

172 The defendants put in evidence a certified copy of the file, contents, and drawings in the matter of the letters-patent, Isaac A. Sergeant, July 27, 1858, No. 21029.

Also a certified copy of the file and contents in the matter of the re-issued letters-patent, granted Sylvanus Walker, June 18th, 1867, No. 2652.

Also a certified copy of file and contents in the matter of re-issued letters-patent granted Sylvanus Walker, December 31, 1867, No. 2829.

Also certified copy of letters-patent granted Harvey W. Sabin, dated August 16, 1845, No. 4153.

And it is agreed that the printed copies of said documents, contained in the record, have been compared with the originals and found to be correct.

It is further agreed that the French letters-patent, granted to M. Deshayes, June 16, 1855, and the addition thereto, October 13, 1856, as published in Brevets d'Inventions, new series, vol. 50, page 64, &c., and plates referred to, may be added to the defendant's notice of special matter in answer.

Before me,

STEPHEN A. COOKE, JR.,
Special Examiner.

173 FEBRUARY 21, 1871.

Present—James H. Parsons, esq., counsel for complainant, and Benjamin F. Thurston, esq., counsel for defendant.

THOMAS D. STETSON, a witness recalled for the complainant, testifies as follows:

Examined by Mr. Parsons:

Q. 1. Are there any differences between the frame shown and described in the Sergeant re-issue, No. 2829, and that in the original Sergeant patent, No. 21029, July 27, 1858? If so, what are they, and how do they affect the operation of the machine?

A. Yes, there are differences. The arms S S are of equal height, or, if anything, the arm S is the tallest in the re-issue, while in the original the arms are of unequal height, and the arm S^1 is the highest. Both arms are made higher in the re-issue than in the original patent. The differences are of no consequence. The absence of the folding-frame, which carries the hitching-pin in the original patent, I referred to in my former testimony. The drawings are such as would be likely to be made by a draughtsman instructed to draw the rigid frame-work alone, and to omit the wringing mechanism. By the folding-frame, I mean the part lettered E in the original patent, and in the re-issue No. 2652, and referred to by Mr. H. B. Renwick as the "platform."

Q. 2. Referring to the full-sized Sergeant machine, being complainant's Exhibit No. 3, will you state what determined the size of that machine, and how does it correspond with the size indicated in the patent?

A. The size appears to have been determined by the comparison with a wash-tub, which is shown in the drawing. It may also have been determined by the common-sense adaptation of the size to the work for which it was described as adapted, to wit, to take in and pass through clothes, including sometimes sheets and blankets. The machine is about twenty per cent. larger than the proportion called for by an ordinary wash-tub. I judge this difference to have been merely accidental. It seems to be in correct proportions throughout, excepting the insignificant matter of the inequality in the height of the arms of the yoke. I think the differences from the original have no effect on its performance.

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Q. 3. How much do wash-tubs vary in size?

A. They run from twenty-two inches diameter, the smallest, to twenty-six inches diameter, the largest; there is a size about two and a half inches larger than the largest wash-tub, just large enough for that to sit into, known in the trade as a cheese-tub. It might, of course, be used for washing, but the complainant's Exhibit No. 3 is a little large in proportion even for that tub. It is a reasonable approximation, however.

The size of wash-tubs are quite uniform. There are different styles; the pine painted is a little thinner usually than the cedar unpainted. The Baltimore differs a little in size and shape from some of the other makers, but practically the difference is unimportant. A wash-tub has a reasonable definite size, by which to aid the eye or determine by rule about how large a machine should be which is shown attached to it.

Q. 4. Have you seen and examined the defendant's Exhibits F and G, put into the case in connection with the deposition of Henry B. Renwick?

A. Yes.

Q. 5. State how these exhibits correspond with the machine described in the patent granted to Harvey W. Sabin, of August 16th, 1845, No. 4153.

A. The Exhibit F is too large to serve as described in the Sabin patent, and too large to be in proportion to the machine to which it is represented as attached. Mr. Renwick speaks of having taken the

height of the machines as corresponding to that of an ordinary table. He seems to have taken the height of the body of the machine as corresponding to a table, without, in my opinion, sufficient reason.

175 The inclined plane *b*, in the Sabin drawings, extends up about twice as high, and the top of that inclined plane *b* should be about the height of a table. They are so made in practice. I have seen one of the machines and worked it. My mother had one and used it many years. I mean a washing-machine, exactly as Sabin's machine is here described, except the rollers *g h*, and the wringer. I don't remember whether the machine was labelled "Sabin," and I know it had no clothes-wringer. I refer to it as strengthening my assurance in regard to the height of the machine. The presser *d* slides back and forwards on the inclined bottom of the machine, being operated by the slightly bent rods *e*, and the cross-handle *f*, shown plainly in the prospective view, Sabin's figure 1. The inclined plane *b* extends up so that the top of it is about as high as a common table—thirty inches. The Sabin wringer is, I judge, drawn disproportionately large for practical use in the patent. It is frequently the case that patent-drawings are made from small models, and the proportions are somewhat distorted, but the evil therefrom is slight, because ordinary judgment in a mechanic enables him by the description to correct the proportions. In this machine, defendant's Exhibit F, the proportions have been distorted the other way. The wringer is about twice as large every way as is shown in the Sabin patent-drawings.

The proportions of the wringer itself, I mean the dimensions of one part as compared with another of this Exhibit F, correspond with those given in the patent, except that the shaft and the hole therefor are exaggerated in size. They are about twenty-five per cent. too large. The hole for the shaft is that larger than would be required for its proper proportion to the already magnified scale of the other parts.

With regard to defendant's Exhibit G, there is nothing like it in the Sabin patent.

The difference in the dimensions between the Exhibit F and the patent-drawings seem to me important. It seems to have been intentional.

176 Q. 6. Will you state how these Exhibits F and G correspond with the Sergeant patent, re-issued, No. 2829?

A. The Exhibit F differs radically in the main points claimed in the Sergeant patent. The mechanism is a wringing-mechanism, but the framing which supports it is not the yoke-frame of Sergeant. It has the capacity for sitting astride the edge of a tub, and the capacity for clamping firmly thereon, which are elements of the combination of Sergeant's, but it has not the spread construction above; it is not extended circumferentially of the tub corresponding to the Sergeant yoke-frame B, with the widely-divided uprights S S^1. The framing is not adapted to take the clothes into it, and pass them through it between the uprights, or the parts corresponding thereto.

The Exhibits F and G are distorted, and bad specimens of parts of framings attached together. The framing of the Exhibit G is in effect the upper part of Sergeant's yoke-frame B S S^1. The framing of the Exhibit F is a single post with a hole through it suitable to receive a single shaft. Although much larger than is required for an ordinary shaft, it is still too small to pass the clothes through with any facility. Speaking practically, I pronounce it impossible to wring clothes with that combination of the two framings and a wringing-mechanism. The upper part of the post F is in the way; it is an obstruction to the taking of the clothes through it.

If clothes could be wrung in it, it would be by virtue of the combination of the bottom portion of the post F, which I have said is substantially like the bottom of Sergeant's, with the top—not of that same post, but of the other framing attached, to wit, the framing of G, which I have also said is substantially like the upper part of Sergeant's. In other words, a combination of the lower part of Sergeant's framing with the upper part of Sergeant's framing, which would, of course, be Sergeant's framing, but the equivalency of the entire framing to Sergeant's
177 framing is in such case due, not to the post F, disproportioned as it is, but to the splicing upon it a large part of the defendant's framing, of which there is no suggestion in the Sabin patent.

I say, however, that the thing would not wring successfully even as thus compounded, because the head of the post of Sabin, being still retained, would prevent the operation.

Q. 7. What would be required to be done to Exhibits F and G, as constituting a framing, to make such a framing as Sergeant's?

A. Saw off the head of the post F, and firmly fix the framing of G upon it; that would be one way. Another would be to spread open the top of the post F enough to put in the wringing-mechanism of Sergeant, shown in the original Sergeant patent, and in re-issue No. 2652; or put in the wringing-mechanism of defendant, or put in no wringing-mechanism at all, so long as the upper portion of the framing is spread out laterally, and is open enough to take in such mechanism, and to take the clothes into it and wring it between the uprights, or within the thus spread post, or spread frame, and deliver it by passing it through. Those are the great qualities which have revolutionized the wringer business.

Q. 8. Please point out, briefly, the differences between Sergeant's frame and Sabin's, distinguishing which are substantial and important.

A. Sergeant's framing is spread circumferentially of the tub, as above just explained; and that is substantial and important. It is this quality, in combination, I say, with the capacity for striding the edge of the tub, which are set forth in Sergeant's specification as important, and made the subject of the first clause of Sergeant's claim. A second point is the combination of all this with a means for tightening the grip on the tub; this is made the subject-matter of the second clause
178 of Sergeant's claim. A third point of difference is the open construction of the top of the framing of Sergeant, allowing the wringing-mechanism to be lifted out at will. This is a substantial difference; it is not a mere mechanical variation; but the difference, though I pronounce it substantial, is not, in the present state of the art, important. A fourth difference lies in the adaptation for supplying the pawl P, in Sergeant's machine; this, where a twisting-mechanism is employed, might be important. It is a substantial difference. The employment of that pawl, and of corresponding notches, or means for matching it into the wringing-mechanism, to hold all the twist it gets, might give important qualities to a wringer; but it is not of much consequence in the present state of the art. A fifth difference lies in the folding-frame E, which carries the hitching-pin. This gives a substantially different character to the finished machine in which such is employed. There are a good many mechanical differences, such as the fact that the legs, which take hold of the tub in Sergeant's, are longer than in Sabin's, and many others, which it would be wearisome to enumerate, and which I pronounce unsubstantial and immaterial. On a severe analysis, it is difficult to consider the pawl P, or the folding-frame E and its attachments, as a part of the framing. The capacity

for attaching these parts, and making them efficient, is due to the peculiarities of the framing; but this is the spread construction of the frame. They are more properly results of the spread construction of the frame, which results might, under some conditions and with some mechanisms, be important, but at present are not. The only distinctive feature, which I unhesitatingly say exists in the framing itself, and is substantial, in addition to the first and second above enumerated, is the open top of the frame, which I have enumerated as third. It is not
179 important in any class of wringers now generally used; and is not, in my opinion, the subject-matter of either of the claims.

Q. 9. You have referred to certain differences which you term important; are, or are not, all of them included in the claims of the patent in suit; and, if not, will you point specifically which of the differences you have mentioned you mean to be understood that you consider to be included in such claims?

A. Sabin has a post, with a hole through it suitable to receive a simple shaft. Sergeant has a frame, with an aperture in it very much larger, so as to give a substantially different character, and allow the introduction of much more bulky matter. It is adapted to receive mechanism which takes the clothes through and wrings them on the way, within that framing; that construction of the framing yielding also some other advantages, as above referred to. That quality, the spread construction, in combination with the forked construction below, adapted to sit on the edge of a tub, as a clothes-pin sits on a line, is the subject-matter of the first clause of claim; and the same, with the wedge D, or equivalent tightening means, forms the subject of the second clause.

Cross-examined by Mr. Thurston:

Cross-q. 1. When you say that the Sergeant wringer is arranged circumferentially of the tub, do you mean anything more than that the said wringer, when in place, constitutes, so to speak, a chord of an arc of a tub?

A. That is a good way of putting it; when it is mounted just enough within the rim of the tub, the yoke-frame B will coincide exactly with a chord; it may be changed a little from that position, but if it were turned around much, so that the spread should be diametrical to the tub, it would go far to interfere with its success.

Cross-q. 2. Referring to John McLaughlin's patent of Octo-
180 ber 16, 1855, No. 13684, do you not find that the standard A, for the wringing-mechanism, is, when in place, arranged circumferentially to the tub?

A. I think it should be; the drawing does not indicate, and the patent does not state.

Cross-q. 3. Have you any doubt, from the examination of the patent and the drawings, that it was intended that the standard A should rise from one side of the tub, and that its fellow standard, to which the other end of the clothes *are* attached, should be attached to the opposite side of the tub?

A. Not much. The standard does sit astride of the edge; it must be either inside or outside, or perched exactly on the edge. Every consideration requires it to be near one side. If I had the job to execute, I should fasten it with wood-screws on the outside of the tub, unless the hoops were so thick or irregular as to interfere with that arrangement, in which case I would risk the damage to the interior of the tub, by putting screws through the standard, and screwing it on to the inner face; either way, it would stand circumferentially; the spread would be circumferential to the tub.

Cross-q. 4. In short the standard A, as you understand it, is arranged circumferentially to the tub?

A. Yes.

Cross-q. 5. In the McLaughlin machine, do not the clothes, as wrung, pass through the wringing-mechanism, so located circumferentially to the tub?

A. Yes.

Cross. q. 6. In the McLaughlin machine, is there, or not, a clamp to jam the clothes against the side of the circular opening in the wringing-mechanism?

A. There is.

Cross-q. 7. In the McLaughlin machine, what is the function or office of the pawl *c* and the ratchet *b*?

A. They hold the clothes in the twisted condition; they prevent the twister from being revolved only in one direction; to turn it the other way, or to untwist, the pawl must be lifted. It is identical in
181 function, in its relation to the twister, with the pawl P in the Sergeant mechanism, shown in his original patent, and in the re-issue No. 2652, but left out in the re-issue No. 2829, where only the framing is described.

Cross-q. 8. Is not the standard A, in the McLaughlin machine, substantially a yoke-frame?

A. Yes.

Cross-q. 9. Look at Harrison Hagans' patent, July 5, 1845, No. 4101, and state whether it is not true that the wringing-mechanism is in this case arranged circumferentially to the tub or box?

A. Yes, it is.

Cross-q. 10. Do not also in this machine the clothes, as wrung, pass through the squeezing-rollers?

A. Yes.

Cross-q. 11. In said apparatus, is there not also a yoke-frame supporting the wringing-mechanism?

A. Yes.

Cross-q. 12. How do you determine how large should be the shaft of the wringing-mechanism of the H. W. Sabin patent?

A. By its proportion to the length of the twister is one way. The diameter of the shaft is one-fifteenth of the length, in Sabin's drawings.

Cross-q. 13. Is there any necessary relation between the diameter of the neck and the length of the twister, in a twist-wringer of the Sabin class?

A. Yes; it need not be exactly the proportions here given, but there is a necessary relation. If the twister is very long, and the shaft too slender, it will break. If the twister is very short, and the shaft too thick, it increases the friction and the weight and bulk, without attaining any good.

Cross-q. 14. In the event that the shaft was of iron, could it not be made of smaller diameter than if it were made of wood, and, if of wood, ought it not to be of larger diameter than if made of metal?

A. Yes, to both questions; iron is not suitable, from the lia-
182 bility to rust the clothes. A successful twister could be made with a quite slender shaft of brass.

Cross-q. 15. Do you understand that between two holes, one of which is two inches and a half in diameter, and the other is four inches in diameter, that there is a difference in kind or degree, the conditions under which the two holes supposed are situated being the same? I ask this question with reference to your answer to the 9th redirect interrogatory.

A. In most cases, making a hole larger or smaller would not impart any new function. In other cases, where it would make a substantial difference in the action, and particularly if, as in this case, it made a radical difference in the capacity of the device, adapting it to receive and support a different class of mechanism, I should say it would make a difference in the device which would be a difference in kind. I say usually only in degree, in some cases in kind.

Cross-q. 16. When, in your last answer, you used the words "as in this case it makes a radical difference in the capacity of the device," have you not momentarily lost sight of the McLaughlin patent, where there is a hole of like capacity with that shown in the Sergeant patent?

A. I think not. I tried to answer the question which referred back to my answer to the 9th redirect, where I was challenged to point out features of difference, and qualities of difference, between Sergeant's and Sabin's, alone. The frame of McLaughlin is sufficiently open to serve like Sergeant's; whatever difference there may be in the dimensions of McLaughlin's and Sergeant's frames in regard to capacity for receiving and passing through bulky matter, is a difference of degree merely. Both these, McLaughlin's and Sergeant's, differ in kind from Sabin's, and this difference is due, I think I may say, entirely, to the size of the holes, and the corresponding spreads of the frames to match.

Cross-q. 17. Referring again to your answer to the 15th recross-
183 interrogatory, it is not; do you wish to be understood as implying that when Sergeant made use of a hollow shaft or disk, open in the center, through which clothes, as they were wrung, could pass, that he, in that respect, used any different structure from the McLaughlin patent?

A. No.

It is agreed by and between the respective counsel that the small model, marked "defendant's Exhibt H, Geo. F. Seymour, special examiner," the same purporting to be a model of the machine for which letters-patent were granted to Harvey W. Sabin, August 16th, 1845, be admitted as evidence in this suit.

THOMAS D. STETSON.

Sworn to before me.

GEO. F. SEYMOUR,
Notary Public and Examiner.

And said cause was continued from term to term to the June term of said circuit court, 1871, when it was called for hearing before Judges Shepley & Knowles upon the bill, pleading, & testimony taken therein, and argued by counsel, and held for advisement.

And said cause was further continued to the present June term, 1872, when the following decree was entered:

184 Circuit court of the United States, district of Rhode Island, *ss*: June term, 1872.

METROPOLITAN WASHING-MACHINE COMPANY
vs.
PROVIDENCE TOOL COMPANY.

Decree.

This cause came on to be heard on bill, answer, and proofs, and having been argued by counsel & considered by the court, it is thereupon or-

dered, adjudged, and decreed that the said bill be dismissed with costs, to be paid by said complainant corporation, the said costs to be taxed by the clerk of this court.

Entered as the decree of this court, per order thereof, this 4th day of November, A. D. 1872.

HENRY PITMAN, *Clerk.*

185 Whereupon the complainants entered the following

Prayer for an appeal.

And now, on this fourth day of November, 1872, the above-named complainant corporation, in open court pray an appeal from the decree this day entered against them.

By their solicitors:

JAMES H. PARSONS.
T. A. JENCKES

Allowed by order of court this 4th day of November, A. D. 1872.

HENRY PITMAN, *Clerk.*

And on the 7th day of said November, the following appeal bond was filed:

Bond.

Know all men by these presents:

That the Metropolitan Washing-Machine Company, executing this instrument by their president, Ross C. Browning, the said com-
186 pany being a corporation created by the laws of the State of Connecticut, as principal, and James H. Parsons, in the city of Providence, in the State of Rhode Island, as surety, are held & firmly bound to the Providence Tool Company, a corporation duly created by the laws of the State of Rhode Island, in the full sum of five hundred dollars, the payment whereof, well & truly to be made to the Providence Tool Company, we, the said principal and surety, do hereby bind ourselves, said corporation, and our heirs, executors, & administrators. Sealed with our seals and dated this sixth day of November, A. D. 1872.

The condition of this obligation is such that, whereas at a circuit court of the United States, holden on the 15th day of June, A. D. 1872, within & for the district of Rhode Island, a suit in equity, commenced by the Metropolitan Washing-Machine Company against said
187 Providence Tool Company, was heard and determined, and a decree was entered dismissing the said bill with costs, to be paid by said Metropolitan Washing-Machine Company, said costs to be taxed by the clerk of said circuit court for the district of Rhode Island. And whereas an appeal from said decree was prayed in open court, and the same was granted & allowed, to the Supreme Court of the United States, to be holden at Washington, in the District of Columbia, on the first Monday of December, A. D. 1872:

Now, if the said Metropolitan Washing-Machine Company shall prosecute the said appeal with effect, or, in default thereof, pay all costs which may be decreed against them, then this obligation to be void, otherwise the same shall be & remain in full force, virtue, and effect.

In witness whereof we have hereunto set our hands & seals this 6th day of November, A. D. 1872.

METROPOLITAN WASHING-MACHINE CO. [L. S.]
ROSS C. BROWNING, *President.* [L. S.]
JAMES H. PARSONS. [L. S.]

Approved November 7, 1872.

JOHN P. KNOWLES,
District Judge.

188 *Citation.*

RHODE ISLAND DISTRICT, *sc:*

The President of the United States of America to the marshal of said district or to his deputy, greeting:

You are hereby required to make known to the Providence Tool Company, a corporation duly established by the laws of the State of Rhode Island & located at Providence, in said State of Rhode Island, that in a certain cause in equity in the circuit court of the United States within and for said district, wherein the Metropolitan Washing-Machine Company, a corporation duly established under the laws of the State of Connecticut, & located at Middletown, in the county of Middlesex, in said State of Connecticut, were plaintiffs, and the said Providence Tool Company were defendants, the said plaintiffs have appealed from a decree of said court rendered against them in said cause at the June term, A. D. 1872, thereof, holden at Providence, in & for said district of
189 Rhode Island, on the 15 day of June, A. D. 1872, unto the Supreme Court of the United States, next to be holden at Washington, within & for the said United States, on the first Monday of December, A. D. 1872, which appeal has been duly allowed, and that they, the said Providence Tool Company, then and there be before the said Supreme Court, to hear the proceedings on the said appeal if it shall seem expedient unto them; and further to do and receive what in the said Supreme Court shall be adjudged & decreed in this behalf; and make due return of this citation, with your doings thereon.

In witness whereof I have caused the seal of said circuit court to be hereunto affixed, and have subscribed these presents, this eighth day of November, A. D. 1872.

[SEAL.] JOHN P. KNOWLES,
Judge of Dist. Court of U. S. for Dist. of R. I.

190 RHODE ISLAND DISTRICT, *sc:*

PROVIDENCE, *November* 8, 1872.

I have this day made service of this citation on the Providence Tool Company, by reading the same to John B. Anthony, esq., (treasurer of the defendant corporation,) in his presence & hearing, & by delivering to him a true & attested copy thereof.

JAMES H. COGGESHALL,
U. S. Marshal.

Service 2.00; copy, .50; travel, .12—2.62.

191 UNITED STATES OF AMERICA,
District of Rhode Island, sc:

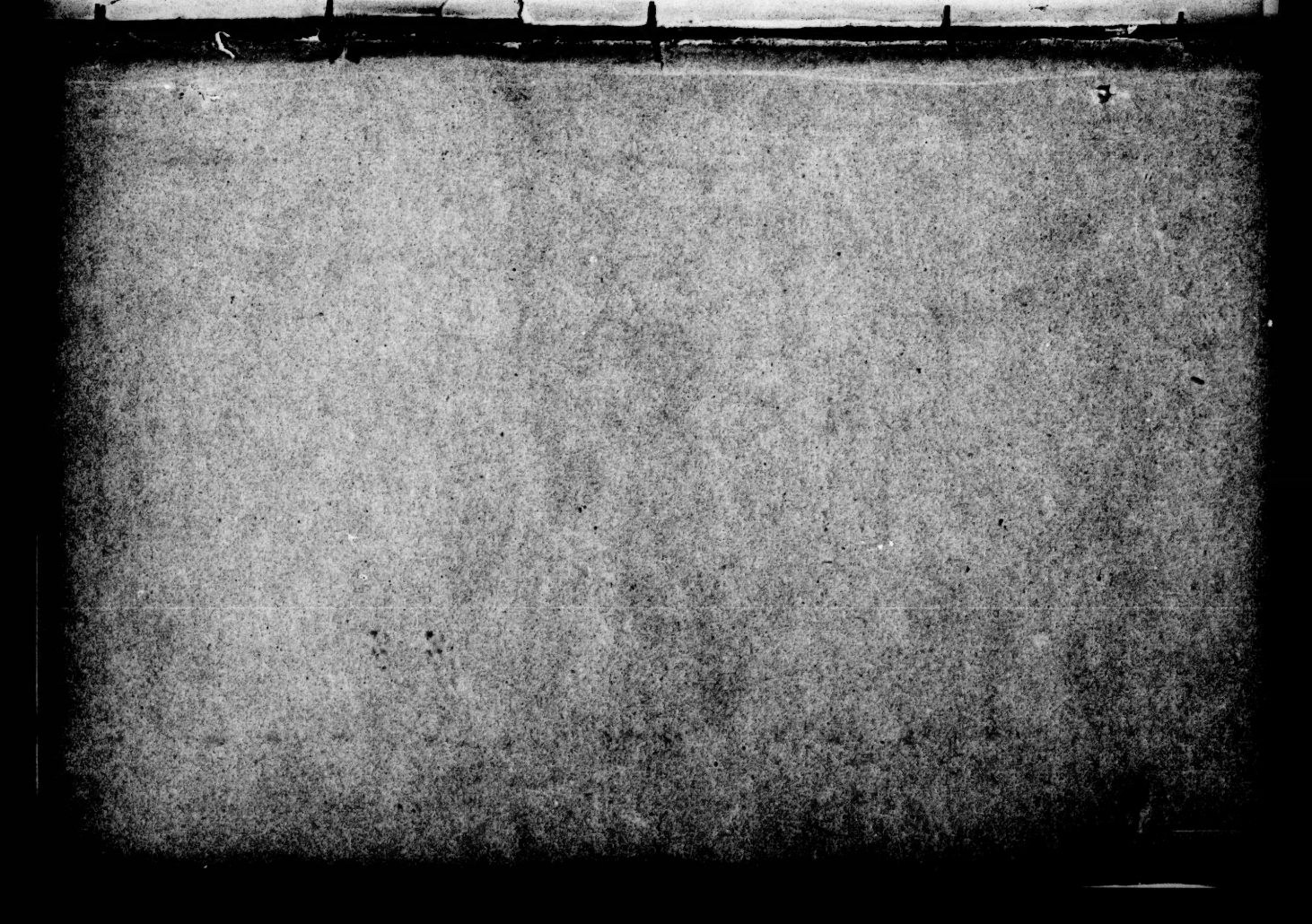
CLERK'S OFFICE, CIRCUIT COURT,
At Providence, Nov'r 9, 1872.

I, Henry Pitman, clerk of said court for said district, do hereby certify that the foregoing one hundred & eighty-six printed & written pages contain a true transcript from the record in the cause Metropolitan Washing-Machine Company vs. The Providence Tool Company, together with all the proceedings therein.

In testimony whereof I have hereunto set the seal of said court & my hand on the day and year above written.

[SEAL.] HENRY PITMAN, *Clerk.*

(Indorsement on cover:) No. 477. The Metropolitan Washing-Machine Company, appellant, vs. The Providence Tool Company. Rhode Island C. C. U. S. Filed 20th November, 1872.



Supreme Court of the United States.

METROPOLITAN WASHING MACHINE CO.,

APPELLANTS,

VS.

PROVIDENCE TOOL COMPANY.

BRIEF AND POINTS FOR APPELLANTS.

JAMES H. PARSONS,
THOMAS A. JENCKES,
Of Counsel for Appellants.

PAWTUCKET:
NICKERSON & SIBLEY, BOOK AND JOB PRINTERS.
1874.

Supreme Court of the United States.

METROPOLITAN WASHING MACHINE CO.,

APPELLANTS,

VS.

PROVIDENCE TOOL COMPANY.

This is an appeal from the Circuit Court of the United States for the District of Rhode Island. It seeks to set aside a decree of that Court based upon an opinion delivered in June, 1872. The transcript of the record was filed in the Clerk's office of this Court November 20, 1872. This was prior to the promulgation of the amendment to the eighth rule requiring a copy of the opinion filed in the case to be transmitted with the record. We therefore print the opinion, which is as follows:

CIRCUIT COURT OF THE UNITED STATES,
DISTRICT OF RHODE ISLAND.

METROPOLITAN WASHING MACHINE CO.
vs.
PROVIDENCE TOOL COMPANY,
In Equity.

SHEPLEY, J. This is a Bill in Equity brought by the Complainants, who are assignees of Isaac A. Sergeant, for infringement of Division Number 2829 of Letters Patent for an improvement in clothes wringers. Said Letters Patent were originally granted to Isaac A. Sergeant July 27, 1858, and were reissued in two divisions, one dated June 18, 1867, and the other, being the one upon which this Bill is brought, dated December 31, 1867.

The machine described in the original patent belongs to that class of clothes wringers generally known as "twist wringers," in the use of which clothes were wrung and the water expelled by twisting the clothes into a rope in the same manner as clothes are wrung by hand.

The original Sergeant machine had a yoke frame of U form, which yoke frame had a pair of jaws and a clamp wedge for securing the frame to the side of a common wash-tub. This portion of the original machine constituted that part of the invention which is embraced in the division of the reissued patent numbered 2829.

To the yoke frame a hinged frame was attached, which, when in position, is at right angles with the yoke frame. A cross bar unites the two sides of the hinged frame. In the centre of the cross bar is set a "hitching pin, around which the clothes to be wrung are partially wound and held fast by the left hand of the operator while the right hand turns a rotary clamp which is set in the yoke frame and which gives the clothes the twist necessary to expel the water." More minute description of this rotary clamp is unnecessary, as it

has little, if any, connection with any questions at issue in this case, the peculiarities of the wringing mechanism not forming any part of the mechanism recited in the claims of the reissued patent number 2829.

After the death of Isaac A. Sergeant, his administratrix, on account of a defective specification, surrendered the original patent, and on two corrected specifications two new patents were reissued to one Walker, to whom the administratrix and the heirs at law had assigned the patent. Walker duly assigned to Complainants all his interest in the patent and in any divisions or reissues thereof.

The claims in the reissued patent No. 2829 are for, first, the employment or use of a portable frame or yoke B with uprights S S, or their equivalents, for supporting a clothes wringing mechanism in position on one side of a common wash-tub for the purposes set forth. Second—The application of an adjustable clamping device when employed to attach a clothes wringer to one side only of a wash-tub *in the manner described and for the purposes set forth.*

In the reissued patent, Division 2, No. 2829, by a separation of the invention of the patentee, the yoke frame, in combination with its device for being clamped to one side of a common wash-tub, is claimed as a separate structure without regard to the structure of the wringing mechanism used with such "supporting and connecting apparatus."

The answer of the Defendants alleges in defence, first, that the reissued Letters Patent are fraudulent and void because "they were sought to be procured for the purpose of embracing therein more than was the invention of the said Isaac A. Sergeant; that they were obtained for the purpose of endeavoring to embarrass these Defendants and other parties manufacturing wringing machines by the assertion of a colorable claim to a subject of invention, which, if construed by the Court as broadly as the Complainants by their assertions claim that it should be, would prevent the manufacture of any wringing machine that was detachable from a tub."

If it appears upon the face of the reissued patent that it is not for the same invention as that embraced or secured in

the original patent, then it would be the duty of the Court, as a matter of law, to declare the reissued patent invalid, for such a state of facts, apparent upon a comparison of the two instruments as construed by the Court, would show that the Commissioner of Patents, in granting the reissue, had exceeded his authority, and that there was such a repugnancy between the old and the new patent that it must be held, as a matter of legal construction, that the new patent is not for the same invention as that embraced and secured in the original patent. Matters of construction arising upon the face of the patent are open questions to be decided by the Court, but all matters of fact connected with the surrender and reissue are now held to be closed by the decision of the Commissioner in granting the reissued patent.

Seymour vs. Osborne, 11 Wallace, 516.

This disposes of the first objection in the answer to the validity of the reissued patent, for there does not appear to be any ground upon which it could with reason be contended that the invention claimed in the reissued patent was not described or substantially indicated in the original patent; and the other questions of fact are closed by the decision of the Commissioner.

The Defendants also set up in their answer the anticipation and prior knowledge of the alleged invention of the Complainants by various parties, patentees and rejected applications for patents, whose names and the dates of whose applications and inventions appear in the answer and the amendments thereto.

In view of this defence it becomes necessary to consider the state of the art prior to the date of the alleged invention by Sergeant, and to define the construction and the limitations of the claims in the reissued patent under which Complainants claim.

Without going into a detailed description of machines existing anterior to the date of Sergeant, it will be sufficient for the purposes of this case to clearly embrace that wringing machines were in use in many of the parts in

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of more or less practical utility. Clamping devices were also old and well known means of attaching machines of various descriptions to benches, tables or other articles with which they were used. Reels for thread, vises, eyeleting machines, fluting machines, egg beaters, and small mills had been attached to benches and tables by clamping devices similar in principle to the one described in Sergeant's patent. A clamping device identical with the one used by the Defendants and comprehended in the reissue patent 2829 was applied to a wringing machine before the Sergeant invention.

Letters Patent for a washing machine were issued to H. W. Sabin August 16, 1845. In his machine a common twist wringer was supported by a standard furnished with jaws and a clamp screw, the two forming a clamping device such as is in common use in all wringers at the present time; but the standard was not a U formed yoke frame, simply a support for the journal of a shaft, although the standard had jaws and a clamping instrument adapted to secure the standard to the sides of a wash-tub. Unless the U form of the yoke frame in the Sergeant mechanism is to be considered as an essential part of the Sergeant invention, as distinguished from the standard in Sabin's machine, which is simply a support for a journal, it is difficult to perceive the novelty of the Sergeant invention. The experts examined in behalf of the Complainants testify that, in their opinion, "The said (Sabin) "standard is simply a support for the journal of a shaft, and "is not a yoke frame such as is described in the reissue "patent, nor the equivalent of one, by reason of the differ- "ences above referred to."

But when they compare the yoke frame in the reissued patent with the apparatus for supporting the wringing mechanism in the Defendants' machine, which has two upright standard supporting journals for the pressure rollers, the two liar[illegible]y [illegible] standards being connected by a cross bar at the bot- purp[illegible]ose an[illegible] testify that not only the two upright standards Comp[illegible]lainan[illegible]by a cross bar at the bottom form the yoke standards, [illegible]eit[illegible]he patent, as seen from the inside of the tub, lent of th[illegible] Con[illegible]e parts are duplicated, and the face of the

machine presented to the outside of the tub has also two uprights and a connection which corresponds to the yoke in the patent.

Applying the same reasoning, it is not very easy to see why each standard which supports the journals, as viewed from the sides, is not to be considered also as a separate yoke frame with two uprights and a cross piece, so that it would be as correct to say that the yoke frame of the Complainants is quadruplicated, as to say that it was duplicated. This would seem to be the necessary result of making the U shaped yoke frame include any form of a journal-supporting standard, and it would seem to prove, if correct, that the Sabin patent anticipated the Sergeant invention.

The U form of the yoke frame in the Sergeant machine was necessary as a device for supporting a clothes wringing mechanism *in the manner and for the purposes set forth.* The manner of support was the semi-circular shape at the bottom of the U formed yoke frame which constituted of itself a journal-box, and the peculiar form of that standard which was new, when combined with any wringing mechanism which was old and well known, and a wedge screw or other well known and equivalent clamping device which was old, constituted the only invention which, in the state of the art at the date of the Sergeant invention, could be embraced and protected in that division of the reissued patent. This combination of *such* a yoke frame with uprights or their equivalents, for supporting a wringing mechanism in position on one side of a common wash-tub with an adjustable clamping device, all substantially *in the manner* and for the purposes set forth in the patent, is all that can be sustained as new in this division of the reissued patent.

To attempt to make the claims in this division of the reissued patent sufficiently broad to cover any form of portable standard for supporting a journal of any form of wringer in combination with a wedge, or helical wedge or screw, or other clamping device, for securing the frame to the side of a tub, would be fatal to the patent, as it would clearly embrace what was old, both in the separate parts and in the parts in combination.

The two upright standards in the Defendants' machine connected with a cross bar may in one sense be said to be the equivalent of the U shaped yoke frame of Sergeant. But the upright standards each support, independently of the other, their respective journal boxes in the same manner substantially that Sabin's standard supported a journal for clothes wringing mechanism. There is no significance in any similarity or supposed similarity to a U shaped yoke frame constituting a journal box of itself, and requiring that exact semi-circular or substantially semi-circular form to form of itself the journal box. The reissued patent in controversy in this case is, as construed by the Court, only for a combination. Upon no other construction could it be sustained.

The first claim refers to peculiarities in the construction of the U shaped yoke frame for the support of the wringing mechanism, the second to the combination of this peculiarly constructed yoke frame with reference to the purposes of the peculiar form of construction with an adjustable clamping device, when employed to attach a clothes wringer to one side only of a wash-tub.

The standards or uprights in the Defendants' machine can with no more propriety be considered as the equivalents of the U shaped yoke frame in the Complainants', than can Sabin's standard be considered as a yoke frame because it supported a journal box. If the two standards in the Defendants' machine, with their connecting cross bar, is to be claimed as the equivalent of Complainants' yoke frame, then any frame of any kind, supporting any wringing mechanism, must be considered an equivalent, for there cannot be any form of frame constructed supporting a journal which could not be dissected into a yoke frame or a U shaped yoke frame by an elimination of parts not indispensable. The Defendants do not use a U shaped yoke frame with any such peculiarity of construction in the form of the frame for the same purpose and in the same manner in which it is used in the Complainants' combination. If the Defendants' frame and standards, either separately or in combination, are the equivalent of the Complainants' yoke frame, then the Complain-

ants' yoke-frame, when combined with the clamping device and a wringing mechanism, is the equivalent of Sabin's journal-supporting standard in similar combination.

As the Defendants, in the view taken by the Court of the Sergeant invention, do not use all the elements of his combination, when Sergeant is confined within the exact limits of his invention, and is allowed the full benefit of his invention, so far as it was novel, they are not liable as infringers, and the Bill must be dismissed with costs.

As stated in the foregoing opinion, the suit is brought for the infringement of patent No. 2829, dated December 31, 1867, the same being one of the divisions of a reissue of original patent No. 21,029, which original bears date July 27, 1858. The patent is for an improvement in clothes wringers.

The Court have sustained this patent for a limited combination, but have decided that the Defendants are not infringers when the patentee "is confined within the exact limits of his invention."

The appeal is brought here by the Complainants below. Although on the hearing in the Circuit Court the Defendants (Appellees) earnestly sought to wholly invalidate the patent, they have not appealed from the decision of the Circuit Judge. The only practical question, therefore, for this tribunal to consider is that of infringement.

I.

Upon a correct construction of the patent in suit and upon the evidence in the case the wringer manufactured and sold by the Defendants (Appellees) is made substantially in accordance with the specification and claims of the reissued Letters Patent No. 2829, and in infringement thereof.

The material portions of the language of the specification of this reissue, No. 2829, is as follows:

"The first part of this invention consists of a portable machine, which may be temporarily attached to one side of a common wash-tub, or readily disconnected therefrom whenever desired, and is especially adapted to wringing clothes.

The second part of this invention consists in a portable frame, and employed for supporting the wringing mechanism of the machine upon one side of a common wash-tub by means of a clamping device which is made to gripe one side of a wash-tub for the purpose of attaching and sustaining temporarily the entire wringing mechanism on one side of a common wash-tub in a firm and expeditious manner, regardless of the diameter of the tub."

Then follow the references to the drawings, in which the wash-tub, the yoke of U form, and the sides forming the uprights, are described. From the lower end of the yoke extend the jaws, which contain within a dovetail groove, a wedge or key.

"The office of the above described jaws and wedge is to hold the frame composed of this yoke and uprights for supporting the wringing mechanism of the machine in position for use, on one side of a common wash-tub, in a permanent manner temporarily, regardless of the diameter of the tub or the thickness of the rim, in reference to which service they are termed collectively the 'vise.'"

The claims of the reissue follow legitimately from the language and description contained in the specification.

They are as follows:

"I. The employment or use of a portable frame or yoke B with uprights S S^1, or their equivalents, for supporting a clothes wringing mechanism in position on one side of a common wash-tub, for the purposes set forth.

II. The application of an adjustable clamping device, when employed to attach a clothes wringer to one side only of a wash-tub, substantially in the manner and for the purposes set forth."

See Record, p. 10, fols. 19–20.
" " pp. 11 and 12, fol. 22.

The evidence of the competent experts examined by the Complainants (Appellants) states very clearly exactly what the invention secured by this reissue is.

We shall quote their language somewhat fully, for we deem it very valuable as illustrating the view taken by the Appellants and their counsel of the patent in suit.

Mr. T. D. Stetson, in reply to the question, "What is the invention set forth as the subject of said reissued patent?" testifies thus:

See Record, p. 54, fols. 110 to 112.

"An improvement relating to wringing clothes and analogous articles in connection with a wash-tub or similar vessel. It relates to the means of holding the machine in position. There may be many varieties of wringing mechanism, but all require some means of holding them. The power applied by the crank, screw, or whatever may be the means of operating a clothes-wringer, tends to disturb its position, and even the weight of the clothes depending therefrom or laid therein, and obviously its own weight, all require some means of support. This invention provides, better than any means known before, for supporting the machine on a tub, and making the weight of the tub and of the water therein serve as an efficient means of holding the machine firmly in position against all these disturbing forces, or any others

which are likely to be brought to bear on it. There are two parts or separate features, or combinations of features, in the invention; both relate to the framing, which serves as an intermediate member between the wringing machine or the wringing mechanism, and the vessel on which it is supported. The first consists in peculiarities in the construction of the frame itself, and its adaptation to the work of properly holding up the wringing mechanism; the second consists in means, in combination therewith, for tightening the grip or hold of this peculiar frame upon the vessel. The invention, as a whole, adapts the wringing machine to fit upon an ordinary wash-tub without the necessity for any preparation of the tub, and allows the machine to be shifted rapidly and with little labor or skill from one tub to another, even if the tubs differ greatly in size, thickness, or other qualities. The frame is formed with two uprights, at a sufficient distance apart to include the mechanism between them, and to give support to the mechanism at points sufficiently distant from each other to effectually resist any tendency to twisting the machine around in the frame. These uprights are arranged to come circumferentially upon the tub—that is to say, the connection between them, which forms another element in this peculiar framing, stands so as to nearly coincide with the side of the tub, when the frame is in position; I conceive this to be an essential element of the invention, and that uprights arranged in the other direction, so that a line drawn between them would stand radially with the tub, would not contain the invention; at least it would not in as good a form. I define the yoke designated B in the patent as being composed of a connection and of two uprights well removed from each other, and arranged circumferentially to the tub, when the frame is in position on the tub. The remaining element in the first part, or first combination in the patent, is the means for fixing the frame firmly upon one side of the tub. There had been previously devices for putting wringing mechanism upon washing machines and other vessels by extending across the top or sitting down in the bottom; this inventor provided a pair of jaws which were adapted to fit on one side of the tub, and to sit there as a clothes-pin sits on a line; one jaw

stands on the inside, and presses against the inner face of the tub; the other jaw stands on the outside, and presses against the outer face of the tub. These jaws are mounted on the machine or framing described, so as to support it and its dependencies firmly and yet allow the machine to be readily applied to and removed from the tub. By making the jaws sufficiently wide to fit on the thickest tub, or making the space between them a little wedging—that is, narrower at the top, like the corresponding recess in a clothes-pin—the frame and the mechanism carried thereon could be made to apply with some success on tubs of different thicknesses, and would support the machine against very great movements without any further provisions; but special means are provided in the patent for tightening the grip on the tub, and preventing all rattling or other motion. This provision and combination forms the second combination or point in the invention; there is a wedge provided in one of the jaws, so as to act between that jaw and the adjacent face of the tub; this wedge being driven by the hand, or by any convenient appliance, after the frame is placed on the edge of the tub, may be driven to greater or less extents according as the thickness of the tub may vary, and in all cases effectually tightening the whole; the wedge will retain its place as long as may be desired, and when driven backward or withdrawn the machine is again liberated, and can be easily lifted off the tub and laid aside, or similarly mounted upon another. It is the combination of this or some corresponding tightening means for tightening the grip of the framing B upon one side of a common tub, which forms the subject matter of the second part of the invention. It contributes greatly to the usefulness of the framing. It may be varied in form within wide limits. A screw to tighten the grip, extending through one of the jaws, and pressing either directly or indirectly against the adjacent face of the tub, is an equivalent.

I do not consider that the frame B is limited to the U form shown and described. It may be square bottomed or modified in various ways, without defeating the ends which it is intended to serve. So, too, the parts may be duplicated, and variously modified in the frame and materials of the details

without disturbing the substantial identity of the invention. I esteem it essential that the jaws denoted in the patent by the letters C C 1, or the equivalent means for holding the framing and its connected mechanism in position on the side of the tub, shall be so arranged and applied as to hold the framing to coincide or nearly coincide with the edge of the tub, and so that the uprights shall present the machine or mechanism mounted thereon in a corresponding position, —that is, as before explained, extending circumferentially to the tub or vessel; this allows the machine to be much more compact and convenient than would be possible if extending radially. A more familiar term for circumferentially would be flat-wise,—the uprights and their connections stand flat-wise, instead of cross-wise, the edge of the tub."

Again: Mr. E. S. Renwick was called as an expert by the Appellants. He was not, in his direct examination, called upon for a full statement of the nature of the invention set forth in the reissue in suit, his examination being confined to other matters in this case. He, however, testified that he had examined and was familiar with the reissue, and understood the construction and operation of the machine described therein. (Record, p. 41, fol. 85.)

Upon cross-examination, however, he was asked, substantially, what he considered the invention set forth in the reissue to be. His answer was this:

"I regard the invention as being a supporting apparatus for any wringing mechanism with which it may be used with advantage, and for connecting such wringing mechanism with the tub from which the clothes are to be drawn. I think it might be more properly called a supporting and connecting apparatus for wringing mechanism."

See Record, p. 48, fol. 98.

Both the patent itself and the language of the witnesses in stating the nature of the invention which it describes will become more clear and intelligible when examined in connection with the drawings and models.

Having thus endeavored to present the patent, its specification and claims, with a full statement of the invention which it describes, we proceed to the question: Does the machine made and sold by the Appellees (Defendants) contain in its construction and operation substantially the same mechanism set forth in the patent sued upon; and do any differences between the two so change the machine that it does not substantially contain the mechanism set forth in the reissue in suit?

In reply to this question, Mr. E. S. Renwick thus testifies:

"The said machine, in my opinion, contains in substance the mechanism set forth in the said reissued patent, and recited in the two claims thereof; the points of identity between said machine, Exhibit No. 1, and the mechanism recited in the claims of the patent, are as follows: The said machine has two uprights, corresponding with those marked S S 1, described and represented in the drawings of said patent, which uprights in said machine I have marked with the letters S S 1; the said machine also has a cross-piece connecting the lower parts of the said uprights, which cross-piece corresponds with the cross-piece lettered B in the drawings of said patent, and forms, with the uprights of said machine, a yoke of U form, substantially such as is described in said patent; I have marked the said cross-piece in said machine with the letter B; the said machine also has jaws, which extend below the yoke (formed by the uprights S S 1 and cross-piece) in suitable positions to embrace the side of a wash-tub, to which the machine is applied, which jaws correspond with the jaws described and represented in the said patent for the same purpose; I have marked the said jaws in the said machine, Exhibit 1, with the letters C C 1; the jaws in said machine are fitted with a screw for the purpose of securing the machine to the object to which the jaws are applied, in substantially the same manner as the machine described in the said patent is described to be secured; the said screw corresponds with the wedge D, described in the patent for the same purpose, and is the well known mechanical equivalent of a wedge for producing pressure, a screw being in substance a rotary wedge, or a wedge wound round

an axis. The said machine, Exhibit 1, differs from the mechanism described in the patent, in having two sets of jaws, C C 1, and clamping instruments, while the machine described in the patent has but one set; I do not, however, regard this difference as material, because the said machine, Exhibit 1, has certainly one set of jaws and clamping instrument, and the second set is in the nature of an addition which undoubtedly is an improvement without changing the mode of operation of the machine; the said machine, Exhibit 1, contains various other parts which I have not referred to, because the parts which I have referred to are, in my opinion, those only which correspond with those described and represented in said patent; the peculiarities of the wringing mechanism, as I understand the said patent, not constituting any part of the mechanism recited in the claims thereof."

See Record, pp. 41, 42, fols. 85, 86, 87.

Mr. Stetson, replying to a question similar to that asked Mr. Renwick, testifies thus:

"It contains it. It contains both parts or both the combinations in the patent; it has the peculiar frame and the means for tightening that frame and supporting it and the mechanism on the edge on one side of a common wash-tub or similar vessel. The wringing mechanism is different; it is adapted to express the water by conducting the clothing, or analogous articles between rollers, while the mechanism referred to in the patent as forming the subject of another application for letters patent, meaning another branch or division of this reissue, is a mechanism adapted to express the water by twisting. But the framing which supports the mechanism in this Exhibit No. 1, Defendant's machine, is identical with the yoke B described in the patent. Its uprights marked by Mr. Renwick, S S 1, correspond in position and in function with the uprights correspondingly marked in the patent; the cross-piece, or connection B, corresponds with the main body or base of the yoke marked B in the patent, and the jaws or legs, C C 1, arranged in a plane at right angles to the plane of the uprights S S 1, and adapted to straddle the edge of the tub, and thereby support the

machine on one side of the tub, correspond with the jaws correspondingly marked C C 1 in the patent; they correspond in position and in function. All the parts are duplicated, but this does not destroy the substantial identity of the framing described in the patent; that is to say, there are two sets of uprights, S S 1; both are arranged as the single set are arranged in the patent, and both aid to perform the same function,—that of supporting the wringing mechanism, and resisting any strain tending to disturb its position; the uprights are a sufficient distance apart to guard effectually against any strain tending to twist or slue the machine around. I consider the framing in this Defendant's machine as containing two of the yokes described in the patent, that is to say, the face of the Defendant's machine, which, when it is in use, shows two uprights and a connection at the base, which forms the yoke described in the patent, and serves to keep the mechanism in position; and the face which is presented toward the outside of the tub, has also two uprights and a connection, which corresponds to the yoke in the patent, and serves also to keep the mechanism in position. But instead of either yoke serving alone, as in the patent, to keep the mechanism in position, the mechanism is in this—Defendant's machine, supported and kept in position partly by one yoke and partly by the other. Any tendency to slue the mechanism around in the frame, which may arise from the forcible turning of the crank or any other cause, is resisted by the uprights in this Defendant's machine the same as in the construction described in the patent, except that instead of making one yoke serve to hold the mechanism against a strain in both directions, as in the patent, this machine employs two yokes, so that when you try to twist the mechanism around, it is resisted by the inner faces, or the faces of the yokes which are presented towards each other, and both yokes are required to perform the function of properly holding it. Any given point on the inner faces of these yokes, which is subjected to pressure by a force tending to twist the mechanism around in one direction, is relieved from pressure by applying a force tending to twist or slue the mechanism around in the opposite direction; but in that latter case a

corresponding force or pressure is exerted against the corresponding face of the other yoke. This employment of two of the yokes described in the patent, instead of one, may be partly a necessity, due to the difference in the kind of mechanism which it is to support, but it does not, in my opinion, destroy the substantial identity with the yokes described in the patent. There is not only the yoke B, and the two uprights S S 1, but two yokes B, and two uprights S S 1, connected at the bottom and also at the top; they serve in effect as a unit. There is no yielding or motion of any kind between the parts of the two frames or two yokes; they serve in function and effect as the single yoke B, with its single pair of uprights S S 1 described in the patent.

The clamping jaws C C 1 are also duplicated, but these will require fewer words. The duplication improves the machine, and guards the entire machine better against any slueing force at this point,—the connection of the framing to the tub. The patent describes a single pair of jaws; they are flattened, or widely extended flat-wise with the side of the tub in the patent, and they are sufficient to hold the machine firmly against slueing, as well as other forces. This Defendant's machine has two pairs of jaws; they are mounted under the uprights, and each are narrower than the jaws in the patent, but they perform the same identical function; they sit on and embrace one side of the tub. They are wide enough apart to take in the thickest tub, and they extend down far enough to afford a good bearing and support the framing sufficiently; without their means for tightening their grip upon the tub, the machine would shake or rattle, and its action would be less pleasant; but it would be exactly identical in this respect with the machine described in the patent; that also is confined better by the aid of the clamping means. These jaws stand in planes at right angles, or nearly so, to the yokes above; they stand cross-wise to the edge of the tub, while the yokes above stand flat-wise. These jaws in the Defendant's machine, which extend down and press against the inner faces of the tub, are substantially identical with the jaws C C 1 in the patent.

The clamping means in this machine are screws; each of the jaws in this machine has an iron nut screwed on the outer face of the outer jaw, and an iron screw fitted therein, which extends through the jaw, and projects from its inner face; its outer end is adapted for the action of the thumb and finger in turning it; and its inner end is provided with a shoe to press fairly and firmly against the tub and tighten the grip of the jaws thereon, without abrading or defacing the tub by the direct contact of the screw. I should consider screws or other ordinary fastenings, penetrating into a tub, and depending upon such penetration as the means of affixing the framing to the tub, as sacrificing one of the important conditions of the invention; it would destroy the applicability of the machine to an ordinary tub or vessel without preparation, and it would embarrass or defeat the ready removal of the machine from the tub, and its ready application to another. The use of different machines on a series of tubs would probably fail to match the screws and holes together, and the result would soon be an indefinite number of holes and the destruction of the tubs. But this machine involves no such difficulty; it tightens the grip of the jaws C C 1 by a simple forcible pressure; it would not hold except for the jaws.

A screw is universally known as composed, in theory, of a wedge rolled up. It is, in short, a spiral, or rather a helical wedge; I consider it as here used an exact equivalent of the wedge D, described in the patent.

In short, I find in this machine of the Defendants, the yoke B, with its uprights S S 1, and jaws C C 1, arranged as represented in the patent, and performing the functions as set forth in the patent. They form a substantial embodiment of the invention described in the patent, as "a portable frame or yoke B, with uprights S S 1, or their equivalents, for supporting a clothes wringing mechanism in position on one side of a common wash-tub, for the purposes set forth," and I find in this machine of the Defendants, the clamping screw and its shoe, performing the functions in the combination, and embodying the invention set forth in the patent to be "an adjustable clamping device when employed to attach a clothes

wringer to one side only of a wash-tub, substantially in the manner described and for the purposes set forth."

See Record, pp. 56, 57, 58, fols. 113, 114, 115, 116.

The purpose of the lengthy cross-examination to which each of the above named witnesses was subjected seemed mainly to be confined to an attempt to induce them to say that the invention described in Reissue 2829 was limited to a means of support by a peculiarly constructed frame for the particular wringing mechanism described in Reissue 2652, the first of the two divisions in which the original Sergeant patent, No. 21,029, was reissued.

But this attempt was not successful. The patents are totally distinct and separable. The first does describe a peculiar form of wringer belonging to the family of twist wringers. But the second (that in suit) describes and claims and is for an invention which is a supporting apparatus, not only for the peculiar form of wringing mechanism described in Reissue 2652, but *for any wringing mechanism with which it may be used to advantage*, and for connecting such wringing mechanism with the tub from which the clothes are to be drawn; or more properly a supporting and connecting apparatus for wringing mechanism.

So the purpose of that portion of the examination of Mr. H. B. Renwick, the only witness called by the Defendants (Appellees), which relates to the question now under consideration, seemed to be directed to the same end. An examination of the evidence of this witness upon this branch of the case (Record, pp. 80, 81, 82,) will show clearly that while he admits the existence of the supporting and connecting apparatus for wringing mechanism as described in 2829, he invariably seeks to limit it exclusively to supporting and connecting the twist wringer described in another patent.

Yet Mr. Henry Renwick cannot and does not deny that a supporting and connecting apparatus for wringing mechanism appears in the original Sergeant patent, No. 21,029. It was clearly indicated in the drawings of that patent. This is plain from a simple inspection of them.

The reissue, then, is valid in law.

The Commissioner of Patents "may doubtless * * * allow the patentee to re-describe his invention and to include in the description and claims of the patent not only what was well described before, *but whatever else was suggested or substantially indicated in the specifications or drawings which properly belong to the invention as actually made and perfected.*

Seymour v. Osborne, 11 Wallace, 516.

The statements of the witnesses for the Appellants concerning the identity of the machine made by the Defendants with that described and set forth in Reissue No. 2829 seem conclusive upon the question of infringement.

If the patent be, as claimed by the Appellants, for a connecting and supporting apparatus for wringing mechanism, as described, the Appellees have infringed.

II.

There is nothing in the state of the art, existing at the time of the Sergeant invention, which will invalidate Reissue No. 2829, so that it shall not be so construed that the Defendants' machine will be an infringement.

The answer contains references to very many patents and rejected applications for patents which it was claimed exhibited the state of the art and anticipated the Sergeant invention as described in Reissue 2829.

Record, p. 14, fols. 27 and 28; p. 16, fol. 31; p. 17, fol. 33.

Of these but three were referred to or insisted on at the hearing in the Circuit Court; two were made the subjects of criticism in the examination by the Defendants of their only witness and expert, and but one seems to have been considered by the Court in the opinion printed with this brief.

As all three of them may be made the subjects of discussion and examination, if only for the purpose of illustration, by the counsel for the Appellees in the argument of the case here, it may be well briefly to refer to them and to make such suggestions as may be proper concerning them.

It was insisted that a claim to the "employment or use of a portable frame or yoke with uprights or their equivalents for supporting a wringing mechanism in position on one side of a common wash-tub" would be expressly met by the Harrison Hagans patent of July 5, 1845.

Independently of the fact that the Hagans patent "has no jaws adapted to embrace the side of a wash-tub, and no clamping instrument connected with said jaws, to enable the machine to be clamped to the side of a wash-tub," and although the Hagans patent "describes among other things wringing mechanism," it is yet lacking in one quality, and contains as an essential part one feature which clearly exhibits the difference between it and the Sergeant machine, for "the frame of said mechanism, instead of being a portable

frame, which can be applied to and removed from the side of a wash-tub by reason of its construction with jaws and with a clamping instrument, as is set forth in said Sergeant reissue 2829, *is a fixture upon the wash-tub, the wash-tub itself forming an essential part of the frame of the wringing mechanism.*"

Record, p. 42, fols. 87 and 88.

Says Mr. Stetson concerning this Hagans patent: "There is an entire absence of the element of the invention (of Sergeant) which is described by the term 'portable.' * * * I find in the absence of the jaws C C, or any means of correspondingly making the machine self-sustaining, a very substantial difference from the framing and machine described in the patent 2829. The mechanism to be supported, is good wringing mechanism; the vessel upon which it is fastened, is a good vessel, and the framing by which the mechanism is supported upon the vessel, is a good framing, but it is not the framing described to perform that end, in the patent. There is no equivalent, either in the first or second combinations in the patent; none of the first, because, in the patent, 'the first part of this invention consists of a portable machine, which may be temporarily attached,' and in the claim is described as a 'portable frame' for supporting, etc., 'on a common wash-tub, for the purposes set forth,' and is set forth as adapted to clamp the edge of one side only of a common wash-tub,' none of which applies to this Hagans framing; and none of the second, because, 'the second part of this invention consists of a portable frame' 'employed for supporting the wringing mechanism of the machine upon one side of a common wash-tub, by means of a clamping device which is made to gripe,' and is an 'adjustable clamping device,' to attach 'a clothes wringer'; substantially in the manner described, and for the purposes set forth, and is described as 'two jaws C C 1,' 'with a wedge or key D,' termed collectively the vise.' The patent says, 'the wringer being placed in position on one side of the tub, and the jaws made to gripe the frame firmly'; Hagans' machine has no jaws, and no equivalents therefor, no wedge D, and no

equivalent therefor; it does not contain either the first or second part of the invention in the Sergeant patent."

Record, pp. 59 and 60, fols. 119 and 120.

This Hagans patent was used for another purpose by the Defendants' (Appellees) witness and expert, Mr. H. B. Renwick, to which we shall have occasion to refer hereafter.

But we confidently submit that it cannot be claimed that it directly or indirectly anticipated the supporting and connecting apparatus for wringing mechanism described in Reissue 2829, and which constitutes the Sergeant invention.

The patent of John McLaughlin of October 16, 1855, was made the subject of certain interrogatories by the Defendants (Appellees) in their cross-examination of Complainants' witness, T. D. Stetson.

Record, pp. 91, 92, 93, fols. 180, 181, 182.

Yet, undoubtedly, the McLaughlin wringer is permanently attached to the rim of the tub.

"The McLaughlin mechanism has no jaws of any kind adapted to embrace the side of a wash-tub, and has no clamping instrument of any kind connected with jaws so as to enable the machine to be clamped to the side of a wash-tub. The said McLaughlin patent does describe, among other things, wringing mechanism, but the frame thereof is described as being attached to a washing machine, tub or bench, instead of being constructed as required by said Sergeant Reissue 2829, with jaws and a clamping instrument, which enables the machine to be readily secured to and disconnected from the side of a wash-tub."

See Record, p. 43, fol. 88.

"J. McLaughlin's patent, 1855, has two frames supporting the wringing mechanism; each frame is a straight, plain piece of stuff, at the bottom 'to be attached to a washing machine, tub or bench, as may be desired.' It is not the equivalent of the invention in the Complainant's patent No. 2829, on account of the entire absence of the means described of

attaching temporarily to a tub, and of changing from one to another. This framing was intended to be attached permanently by screws or the like; there is nothing shown nor suggested for attaching or detaching. *It has two frames, attached apparently to opposite sides of the tub, and made a permanent part thereof;* in practice it would only be used on a bench or on a washing machine."

See Record, p. 60, fol. 121.

Although, therefore, the frame of McLaughlin may resemble that of Sergeant, it cannot be claimed that anything contained in McLaughlin's machine suggested or anticipated the invention made by Sergeant and described in Reissue 2829.

The last of the three patents referred to in connection with the state of the art is that of Harvey W. Sabin, dated August 15, 1845. On this the Defendants have largely relied to totally destroy the Sergeant patent, and to it the Judge in his opinion has referred, not to destroy, for he sustains the patent, but to support the construction which he puts upon the patent, and which construction excludes the Defendants' machine.

It becomes important to ascertain just what the Sabin invention is.

The Defendants' (Appellees) witness and expert, Henry B. Renwick, thus describes it:

"The wringing machine described in the Sabin patent consists in part of a revolving shaft, having at one end of it a crank, and on the other a contrivance to which one end of the clothes to be wrung may be secured. The other part of the wringing contrivance is, as far as I can understand, a pair of rollers, one of which is fluted, which serve as a substitute for the ordinary hitching pin, and between which the other end of the clothes is clamped and held fast."

He further says that the revolving shaft referred to is supported and turns in a journal bearing, and this may be attached by jaws and a set screw to the side of a wash-tub.

Record, p. 84, fols. 165–166.

From this unfriendly witness we have this description. Yet he labors to show that the standard which supports this revolving shaft (that being a *part only* of the wringing mechanism of Sabin) is a yoke frame. But he points out differences which are obvious between Sabin and Sergeant which completely destroy such a suggestion. We shall refer to them in another connection.

Mr. E. S. Renwick, testifying concerning the Sabin invention and of the differences between that and the Sergeant machine as described in the reissue, says:

"The said Sabin patent does describe among other things a wringing mechanism, a portion of which is supported by a standard, having jaws and a clamping instrument adapted to secure the said standard to the side of a wash-tub; but the said standard is simply a support for the journal of a shaft, and is not a yoke frame, such as is described in the said reissued patent, nor the equivalent of one."

And again: "The said Sabin patent does not describe or represent a yoke frame having a cross piece and uprights, corresponding with those of the U formed yoke frame described and recited in the claims of said reissued patent."

Record, p. 44, fol. 91.

Mr. T. D. Stetson, upon the same subject, thus testifies:

"H. W. Sabin, 1845, describes a wringer, part of which is adapted to be attached and detached with facility from a tub. The wringing mechanism is supported in part directly on the machine, and the portion detached at pleasure, is only a portion, and not the whole of the wringing mechanism.

* * * * * * *

"There is a single post supporting a crank, with a jaw for holding one end of the goods. The other end of the articles to be wrung, is held between rollers, which rollers are supported in bearings in the fixed frame-work of the machine. That part of the wringing mechanism, or some equivalent, is essential to its operation. * * * * *

"There is in Sabin's machine, the equivalent of the jaws, C C 1, and the equivalent of the griping means D in Complainant's patent, but there is no yoke B, with the uprights S S 1, and the machine as a whole cannot be used on an ordinary wash-tub, nor changed from one tub to another. There is no equivalent of either of the combinations forming the first or second part of the invention of Complainant."

Record, p. 62, fols. 123 and 124.

These are correct descriptions of what Sabin invented and what he has described in his patent and set forth in the drawings thereof, and it seems hardly possible that even Mr. Henry B. Renwick's ingenuity could torture a single post which supports a revolving shaft into the yoke frame described in the reissue in suit. Yet, as we have stated, he attempts it.

Premising that the lower half of every journal bearing is a yoke frame acting to support the shaft, whether solid or hollow, and permitting it to revolve, he declares the journal bearing of Sabin to be "precisely like the yoke frame of Sergeant in so far as it supports, permits to revolve and prevents the end play of a shaft," but he adds that this Sabin "yoke frame," as he designates it, "*is not cut open at the top as Sergeant's is, so as to permit the removal of the rotary part of the wringing mechanism.*" And in pointing out the differences between Sabin and Sergeant, he further says, "*that Sabin's is closed at the top, so that the rotary part of the wringer cannot be lifted out.*"

We have already stated that the effort of the Defendants has been throughout to limit this patent to a supporting and connecting apparatus for the peculiar wringing mechanism described in the other division—Reissue No. 2652—of the original Sergeant patent, Hence the yoke frame is declared by the Defendants' expert to be nothing but a journal bearing for the rotary clamp, so called, which forms part of the mechanism described in Reissue 2652. The two patents and the separate inventions described in each are purposely confused, and it is sought to make peculiarities of form which are wholly unessential, absolutely indispensable to the inven-

tion. Thus, it will be observed, that the examination in chief of the Defendants' witness, so far as it related to the Sergeant patents, was confined almost exclusively to the original patent, No. 21,029, which was surrendered and reissued, and to Reissue No. 2652, which is not in suit. Hence the witness dwells at length upon the "semi-circular cavity cut in a board" called the yoke B in Reissue No. 2652, which "semi-circular cavity is, in the machine, a journal bearing or box in which the circular part of the rotary clamp revolves. Its sole purpose is to support this rotary clamp so that it may be revolved just as any ordinary shaft is revolved in its box," &c.

See Record, pp. 81–82, fol. 161.

But the invention described in Reissue No. 2829 is a supporting apparatus for any wringing mechanism with which it may be used with advantage, and for connecting such wringing mechanism with the tub from which the clothes are to be drawn; or a supporting and connecting apparatus for wringing mechanism.

It is undoubtedly true that the ~~curve line or~~ curvilinear form at the bottom of the yoke frame, described in Reissue 2829, could be more advantageously used with this particular kind of wringing mechanism described in Reissue 2652, but it is not essential to the novel supporting and connecting apparatus of 2829.

But, referring again to the Sabin patent, we find palpable differences between that and the Sergeant invention described in Reissue 2829.

In the first place, Sergeant's framing is spread circumferentially upon the tub. That is so that when it is mounted just enough within the edge of the tub, the yoke frame will coincide exactly with a chord of an arc of the tub. This is substantial and important. This quality, in combination with the capacity of striding the edge of the tub, makes the subject of the first clause of Sergeant's claim.

A second point of difference is the combination of all this with a means for tightening the grip on the tub. This forms the subject of the second clause of claim.

A third difference is the open construction of the top of Sergeant's framing, allowing the wringing mechanism to be lifted out at will. This is a substantial difference.

Sabin has a post with a hole through it suitable to receive a simple shaft. Sergeant has a frame open at the top with a broad space between the uprights which constitute its sides, (the uprights being solidly connected at the bottom,) so as to give it a substantially different character and allow the introduction of much more bulky matter. It is adapted to receive mechanism which takes the clothes through and wrings them on the way, within that framing. The spread construction, whereby the upper part is given its U shape in combination with the forked construction, so to speak, of the lower part, whereby it is adapted to sit on the edge of a tub as a clothes pin sits on a line, is the subject of the first claim. The same, with the wedge or equivalent tightening means, forms the subject of the second claim of Reissue 2829.

Record, pp. 90–91, fols. 178–179.

In support of the position assumed by the Defendants as to the state of the art, they introduced and examined their expert concerning a series of models, marked respectively B, C, D, E, and G. These belong to the class properly denominated hybrid. Not one of them constitutes, nor is it pretended that any one of them constitutes, a practical, operative machine. Not one of them represents anything that ever had an existence. Their apparent purpose is to show how Sabin may be changed so as to be Sergeant; how the Defendants' machine may be made to assimilate more closely to Sabin than to Sergeant. Indeed, in his testimony Mr. Henry Renwick declares that the Defendants' machine is in many respects substantially the same as the Hagans machine, which, however, is substantially different from Sergeant's.

Record, p. 83, fol. 164.

This method of defence against a charge of infringement is not new. It is resorted to most frequently, however, for the purpose of seeking to conceal the real question at issue. But making an invention which a Defendant infringes ap-

Reissued

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Fig 2.

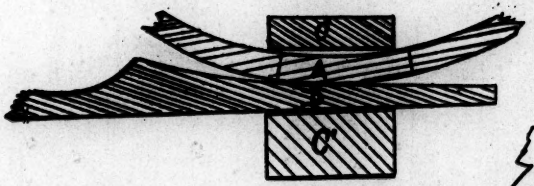
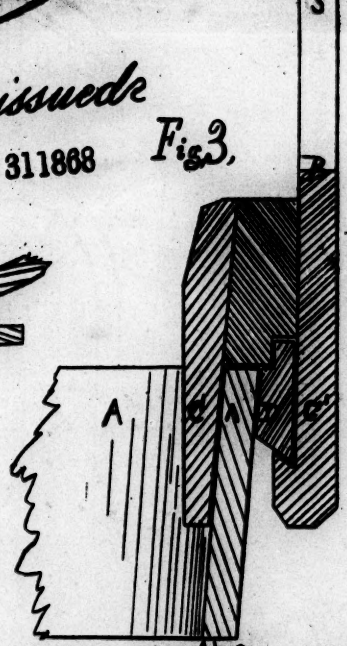


Fig 3.



Witnesses.

E. S. Perry

H. Mason

Inventor. A. S. Sergeant

by Sylvanus Walker

Atty.

March 27

Isaac A. Sergeant

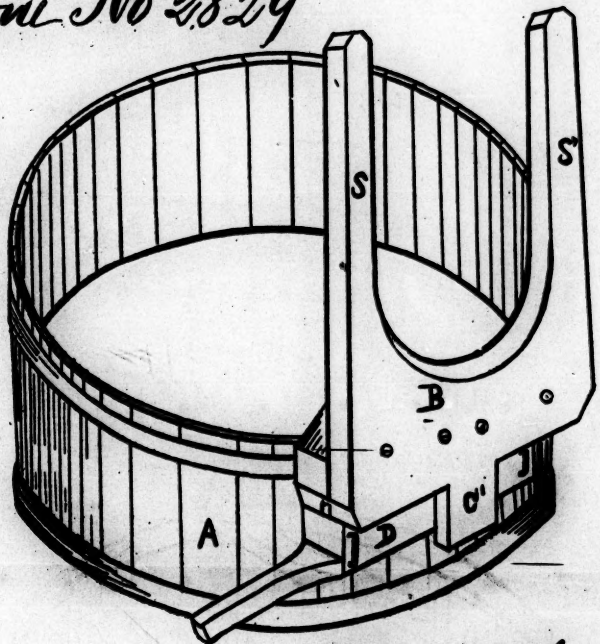
ISAAC A. SERGEANT'S IMPROVED CLOTHES WRINGER.

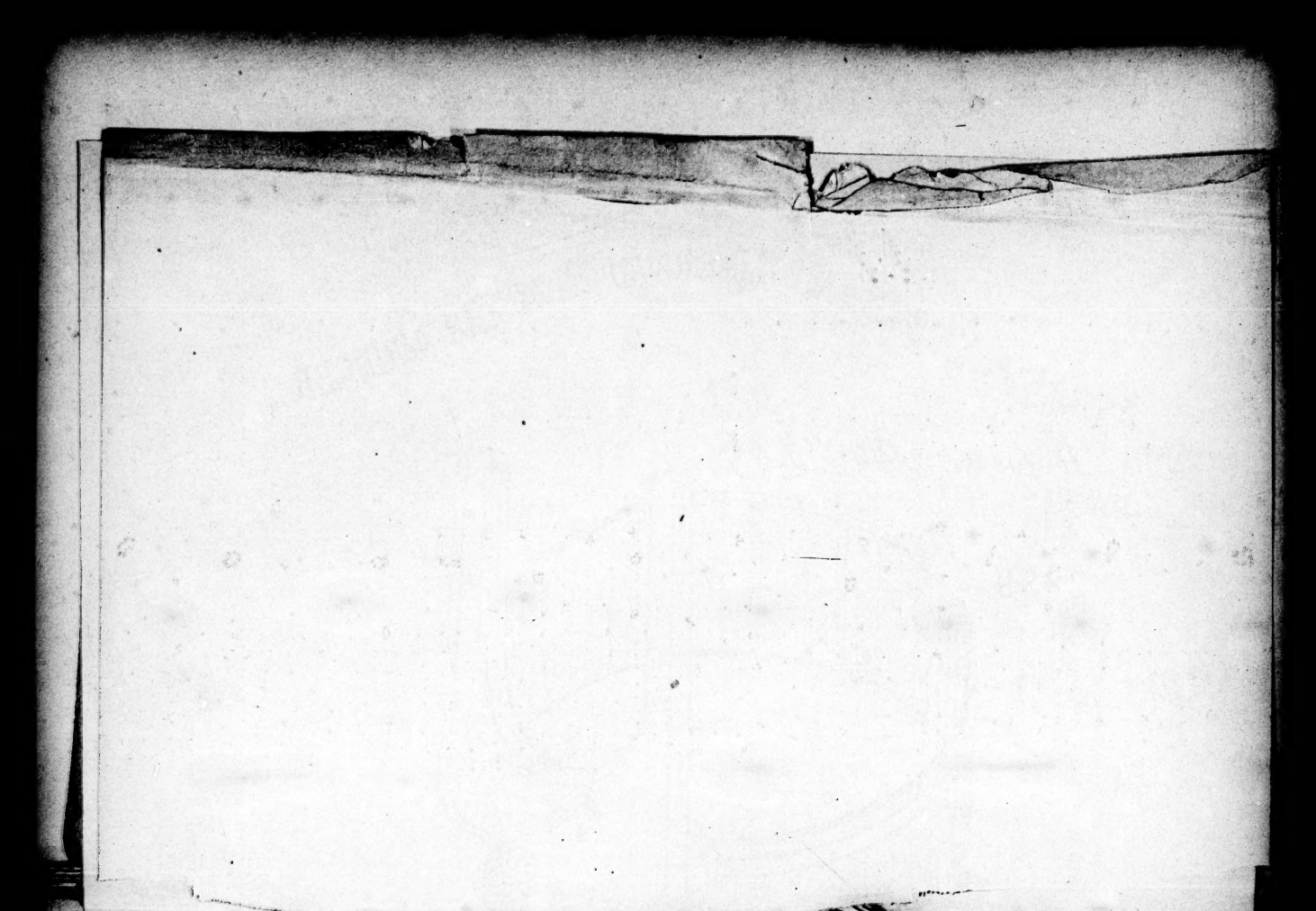
Fig. 1.

Reissue No 2829

Div. 2.

2829





pear inferior to something prior which the Defendant claims his contrivance more closely resembles, is not a valid defence against such infringement.

These models, representing, as we have said, nothing existing, are made up by using a standard suggested in one patent, a clamp in another, a support in the form of a solid post with an augur hole through it in a third, arranged in different ways, but all with the purpose of showing that if these various elements had been combined, they might have anticipated Sergeant.

But if it be true that these old elements properly combined will result substantially in the Sergeant invention, why is not Sergeant the first inventor, and why should his patent not be sustained for the supporting and connecting apparatus for wringing mechanism which he has patented in Reissue 2829?

Mr. Henry Renwick says that Sabin's "*cavity for supporting the revolving shaft*" (that is, Sabin's augur hole,) is closed at the top. "If Sabin's supporting device had the top cut down to the journal, two long arms or uprights would be formed."

Record, p. 85, fol. 167.

But Sabin's supporting device is not cut down, and it has no arms or uprights.

It is undoubtedly true that the mere aggregation in a machine of old parts or devices is not invention; but it is equally true that "invention consists in new modes of employing what was before known so as to produce thereby effects either not produced before, or not produced in that manner, or not produced successfully.

Hailes v. Von Wormer, 7 Blatchford, 444.

If the theory upon which these hybrid models have been prepared is correct, their only effect must be to make apparent that what Sergeant actually did is precisely what it is sought to show that the combination of various parts of old machines might accomplish if properly arranged, and that Sergeant, in and by the combination of parts described and set forth in Reisue 2829, each performing a function and the combination producing an actual practical result not before produced, or

not produced in that manner, or not produced successfully, was and is invention. And for such invention the patent is valid.

The question recurs: Who first produced a frame the sides of which are uprights firmly and solidly connected together at the lower end, the uprights being wide enough apart to receive mechanism which takes the clothes through and wrings them on the way, within the framing, said lower end having also two jaws which extend below it so that the frame may sit on the side of a wash-tub, and the same having also an adjustable clamping device in the form of a wedge or equivalent tightening means?

Who first so attached this supporting and connecting apparatus for wringing mechanism to the side of a wash-tub, making it, for the time being, practically part of the tub itself, but which was also portable and capable of instant disconnection and of being readily changed from tub to tub?

Not Hagans, not McLaughlin, not Sabin even, with his solid post containing its auger hole clamped to the side of a tub.

It was Sergeant, and the invention which he thus first made has been secured to him by Reissue 2829, which should be sustained.

The answer filed by the Defendants insists that in view of the fact that wash-tubs were old, wringing machines well known, and wringing machines attached to a tub known, it did not constitute any patentable novelty to make a wringing machine capable of disconnection from a tub.

The construction of the first claim of the Reissue the answer submits to be, "to a structure which involves the combination of a portable frame or yoke independent of the tub,—a wringing mechanism and a tub,—said frame or yoke constituting the intermediate connection between the tub and the wringer, and that the true construction of the second claim is the employment of a clamping device in combination with yoke and wringing machine."

Record, pp. 14, 15, fols. 28, 29.

We think that all this has been already fully disposed of and its fallacy demonstrated. Sergeant does not claim as patent-

able novelty a wringing machine capable of disconnection from a tub. Still less is the construction of his claims suggested by the answer correct.

In connection with this subject we again refer to and quote the language of Mr. Justice Clifford in Seymour v. Osborne, 11 Wallace, 516:

"Particular changes may be made in the construction and "operation of an old machine so as to adapt it to a new and "valuable use not known before, and to which the old ma- "chine had not been and could not be applied without those "changes, and, under the circumstances, if the machine, as "changed and modified, produces a new and useful result it "may be patented, and the patent will be upheld under exist- "ing laws. (Bray v. Hartshorn, 2 Cliff. 541; Losh v. Hayne, "1 Web. Pat. Cases, 207; Hindmarch on Pat. 95; Phillips "v. Page, 24 How. 166; Norman on Pat. 25.)

"Such a change in an old machine may consist merely of a "new and useful combination of the several parts of which "the old machine is composed, or it may consist of a material "alteration or modification of one or more of the special "devices which entered into its construction, and whether it "be the one or the other, if the change of construction and "operation actually adapts the machine to a new and valua- "ble use, not known before, and it actually produces a new "and useful result, then a patent may be granted for the "same, and it will be upheld as a patentable improvement. "(Park v. Little, 3 Wash. C. C. 196.)

"Improvements for which a patent may be granted must "be new and useful, within the meaning of the patent law, "or the patent will be void, but the requirement of the "patent act in that respect is satisfied if the combination is "new and the machine is capable of being beneficially used "for the purpose for which it was designed, as the law does "not require that it should be of such general utility as to "supersede all other inventions in practice to accomplish the "same object. (Lowell v. Lewis, 1 Mason, 182; Bedford v. "Hunt, 1 Mason, 302; Many v. Jagger, 1 Blach. 372; Bar- "ret v. Hall, 1 Mason, 447.")

III.

The construction put by the Court upon Reissue 2829 was erroneous.

This construction is thus expressed in the opinion:

"The U form of the yoke frame in the Sergeant machine was necessary as a device for supporting a clothes wringing mechanism *in the manner and for the purposes set forth.* The manner of support was the semi-circular shape at the bottom of the U formed yoke frame, which constituted of itself a journal box, and the peculiar form of that standard which was new, when combined with any wringing mechanism which was old and well known, and a wedge or screw or other well known and equivalent clamping device which was old, constituted the only invention which, in the state of the art at the date of the Sergeant invention, could be embraced and protected in that division of the reissued patent. This combination of *such* a yoke frame with uprights or their equivalents for supporting a wringing mechanism in position on one side of a common wash-tub, with an adjustable clamping device, all substantially in the manner and for the purposes set forth in the patent, is all that can be sustained as new in this division of the reissued patent."

It will be observed that this construction differs wholly from that which the Defendants in their answer submit to be the proper construction of 2829, and to support which their own testimony and the cross-examination of the witnesses for their opponents are directed.

Now the "state of the art," to which the learned Circuit Judge refers in the clause quoted, is set forth in the Sabin patent of August 16, 1845, which we have examined at some length. To this alone, as anticipatory of the Sergeant invention, does he refer.

See Point II and references to testimony concerning Sabin's patent.

The Judge says: "Unless the U form of the yoke frame in the Sergeant mechanism is to be considered as an essential part of the Sergeant invention as distinguished from the standard in Sabin's machine, which is simply a support for a journal, it is difficult to perceive the novelty of the Sergeant invention."

We have seen that Sabin has as a part of his mechanism simply a post, with a hole through it suitable to receive a simple shaft. It is true that this post is clamped to the side of a tub. But Sergeant has a frame, the uprights of which are wide apart and make an aperture so much larger as to give it a substantially different character. It is adapted to receive mechanism which takes the clothes through and wrings them on the way, within the framing.

Now, for the purpose of supporting any wringing mechanism with which it may be used with advantage, and for connecting such wringing mechanism with the tub from which the clothes are to be drawn; or, more properly, for the purposes of a supporting and connecting apparatus for wringing mechanism, which is what the Sergeant invention is, there is no necessity whatever that there should be "*the semi-circular shape* at the bottom of the U formed yoke frame." It assuredly will not be contended that unless the bottom of the frame is semi-circular it cannot be U shaped within the meaning of that language of description as used in the patent. If the frame has the characteristics of that of Sergeant, and accomplishes the same purpose; if it supports and connects wringing mechanism, within uprights spread apart, connected firmly at the bottom, and below having projecting jaws which are adapted to sit on the edge of a tub, and the same having also a wedge or equivalent tightening means, it is the Sergeant invention.

Now we submit that this invention is in no sense, nor can it in any possible way be anticipated by a post with a hole through it, which hole is only suitable to receive a simple shaft, although that shaft may have a common twist wringer on the end of it, and although the post may have jaws and

a clamp screw. Yet that is Sabin's, or rather a part of Sabin's, and the only part relied on as exhibiting a "state of the art" which anticipated Sergeant.

The semi-circular shape of the lower end of the U formed frame cannot be essential to a supporting and connecting apparatus for wringing mechanism. It may have been best adapted for the support and connection of the peculiar wringing mechanism which Sergeant used, and which forms the subject of, and is protected by, the other division of the reissue patent, viz., No. 2652. But to say that this form, this semi-circular shape of the frame, is essential to the invention described and claimed in 2829, and that it must be confined to a frame of such peculiar character, is to say, we submit, that it is limited to the particular wringing mechanism which Sergeant supported and connected by it, and which he described in Reissue 2652. But this cannot be. Patent 2652 describes and represents a complete wringing machine, including the wringing mechanism, and the supporting and connecting apparatus for supporting the wringing mechanism and connecting it with the rim of the wash-tub, but the supporting and connecting apparatus is not claimed by itself.

Further: No. 2829 describes the same supporting and connecting apparatus described in No. 2652, and the claims of that patent recite such apparatus, but the patent neither describes nor claims the wringing mechanism described in No. 2652. The supporting and connecting apparatus described and recited as the invention in No. 2829 is not capable of performing any different function from the same apparatus described but not claimed in 2652. But the latter describes both the wringing mechanism and the supporting and connecting apparatus, and the entire machine so described in 2652 is capable of performing a function, viz., wringing, which is additional to any function which the apparatus described and recited in the claim of Reissue 2829 can by itself perform.

See Record, p. 51, fols. 103–104.

Says the learned Judge: "The first claim (of the reissued patent) refers to peculiarities in the construction of the U shaped yoke frame for the support of the wringing mechanism, the second to the combination of this peculiarly constructed yoke frame with reference to the peculiar form of construction with an adjustable clamping device when employed to attach a clothes wringer to one side only of a washtub."

The patent is limited by the Court, and thus narrowly construed only because Sabin had a standard which was capable of supporting the journal of a shaft. As Sergeant used a yoke frame, the bottom of which was semi-circular, (made so, however, because that form was best adapted to support the wringing mechanism which he used and which was described in another patent,) and as that semi-circular shape at the bottom of the U shaped frame, in the view of the Court, "constituted of itself a journal box," Sabin having in his machine a standard capable of supporting the journal of a shaft, anticipated Sergeant, so that Sergeant must be limited to the peculiar form of standard combined with any old wringing mechanism and a wedge or equivalent clamping device.

And thus, though the same frame may support and connect any form of wringing mechanism with which it may be used with advantage.

The Defendants do not infringe, says the learned Judge, because they "do not use all the elements of Sergeant's combination." That is, they do not have "the semi-circular shape at the bottom of the U formed yoke frame which constitutes of itself a journal box."

Yet they use a frame which is substantially a U shaped yoke frame. They use supporting and connecting apparatus, consisting of two uprights. These uprights are firmly fastby cross pieces at the bottom. They use the jaws also and the clamping device. And the wringing mechanism which

this frame thus supports and connects can be removed at pleasure from the frame.

See Record, pp. 50–51, fols. 103–104.

It is not the wringing mechanism which Sergeant used, but it is a wringing mechanism supported and connected by an apparatus substantially the same as that described by Sergeant in Reissue 2829.

We respectfully submit that in view of the evidence and having reference to the considerations touching the state of the art heretofore submitted, the learned Circuit Judge erred in his construction of the patent Reissue No. 2829.

IV.

The Decree of the Circuit Court for the District of Rhode Island should be reversed.

JAMES H. PARSONS,
THOMAS A. JENCKES,
For Appellants.

Supreme Court of the United States.

No. 259.

METROPOLITAN WASHING MACHINE CO.

vs.

PROVIDENCE TOOL COMPANY,

IN EQUITY.

BRIEF FOR APPELLEES.

B. F. THURSTON, Esq.,
Of Counsel for Appellees.

PAWTUCKET:
NICKERSON & SIBLEY, BOOK AND JOB PRINTERS.
1874.

Supreme Court of the United States.

METROPOLITAN WASHING MACHINE CO.

VS.

PROVIDENCE TOOL COMPANY,

IN EQUITY.

BRIEF FOR APPELLEES.

This is a Bill in Equity, brought by the Complainants as assignees of Isaac A. Sergeant, for infringement of Division No. 2829 of Letters Patent for an improvement in clothes wringers. Said Letters Patent were originally granted to Isaac A. Sergeant, July 27, 1858, and were reissued in two divisions, the one in suit dated December 31, 1867, and the other June 18, 1867.

It will greatly simplify the discussion if we commence with a correct understanding of the wringing machine described in Sergeant's original patent, and out of which the device which is the subject of Reissue 2829 has been literally carved.

The machine belongs to the class long known as "twist wringers," in which clothes are wrung by twisting them into

a rope in the same manner as by hand. Another and equally well known class of wringers are those which make use of squeezing rollers to express by pressure water from clothes passed between them. Both classes have been in use for at least a half century.

To convey any intelligible idea of the Sergeant machine two cuts are necessary. Figure 1 represents a yoke frame of U form, the curved portion being an arc of a circle. This yoke has a pair of jaws and a clamp-wedge for securing the frame to the side of a tub.

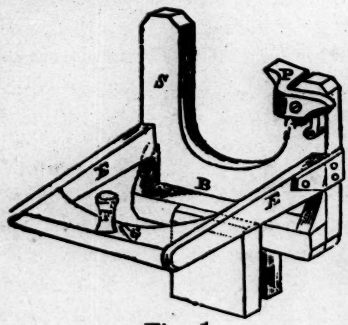


Fig. 1.

To the yoke frame a hinged frame E is attached, which, when in position, stands at right angles with the yoke, as shown in the engraving. At the middle point of the cross-bar which unites the two sides of the hinged frame there is set a "hitching pin" F, around which the clothes to be wrung are partially wound and held fast by the left hand of the washer-woman, while with her right hand she turns the rotary clamp, Figure 2, which forms a part of the machine, and gives the clothes the twist which will expel the water.

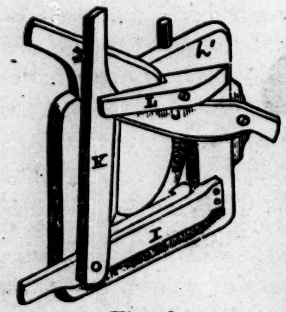


Fig. 2.

The rotary clamp shown at Figure 2 must be supposed to be set in the yoke B of Figure 1. It is, as an apparatus, almost identical with the previously known rotary clamp shown in the patent granted to *John McLaughlin*, October 16, 1855, hereafter to be noticed. (Complainants' witness, *Stetson*, p. 60.) It has a ring H with flanged edges to hold the clamp in

the yoke. I and J are lever jaws which jam against the portion of the clothes inside the ring, and K is a gag for locking said levers. The outer edge of the ring H is furnished at intervals with notches, with which the pawl P, Figure 1, can be made to engage, so that the rotary clamp, when the clothes are twisted, can be prevented from turning backwards, and the washer-woman will be able, if she wishes to do so, to gripe with both hands the portion of the clothes "rendered" around the hitching pin F.

It needs no extended argument to show that the whole thing is a useless trap, and with the exception of the model in the Patent Office, there is no evidence that a machine of the kind was ever constructed. One of the Complainants' experts undertook to make one for this case (Complainants' Ex. 3, Sergeant,) "conforming to the idea and description of the inventor," but with rather indifferent success.

Such being the machine, an assignee of Sergeant's widow, in the interest of the Complainant company, bought the patent for twenty-five dollars, and essayed an experiment in the way of a reissue, which in audaciousness we will undertake to say is not to be eclipsed by any one of the many frauds which have been attempted under the plea and pretence of "accident, inadvertence or mistake" on the part of an inventor.

The grand conception was that all that apparatus shown at Figure 2 was a wringing mechanism, and was the equivalent of a pair of squeezing rollers. That the yoke frame, Figure 1, was an apparatus separable from the clamp, Figure 2, and performed the function of supporting such wringing mechanism; and furthermore, that such supporting mechanism was peculiar in the fact that it had a clamping jaw attached to it, making it capable of being temporarily fastened to a tub. It was therefore proposed to cut the machine up and claim the yoke frame and its device for being clamped to a tub, as a separate structure, without regard to whether the wringing mechanism used with such "supporting and connecting apparatus" were pressure rollers or a twister.

There were some difficulties in the way of this project growing out of the machine with which the applicant for the reissue had to deal, but none which could not be cut out if found inconvenient to overcome. For example, the yoke frame, as Sergeant contrived it, had a hinged frame or platform E, Figure 1, with a hitching pin F attached. These devices forming a necessary part of a twist wringer, would not suit a machine having squeezing rollers, and as there was no other way of getting rid of them, they were unhesitatingly cut off. Again, one of the so called uprights S S′, in the Sergeant machine, was shorter than the other, Figure 1, and the short upright is topped with a pawl P, to prevent the twist head from turning backward. Now as it was intended to include under this reissue all the rectangular frame wringers having pressure rollers in common use, it would not answer to have one short upright and one long one, and the pawl, too, would be very much in the way. Accordingly both uprights are extended in length in the reissue drawing so as to look more like the side frames of a modern wringer. Both were made of the same length, and the pawl P was cut off. Finally the curved portion of the yoke frame is an arc of a circle in the Sergeant machine, and furnishes the journal bearing for the rotary clamp, Figure 2. No such organization of the structure to perform like functions can exist in the roller wringer, but this circumstance was considerately left to be overcome as best it might be by the opinions of expert witnesses, that such journal bearing was a mere feature of construction, appropriate or inappropriate, just as one combined with such "supporting and constructing apparatus" a rotary twister or a pair of squeezer rollers.

We are now prepared somewhat to appreciate the Reissue Patent 2829, upon which suit is brought, and to understand that the invention shown in the original patent of Sergeant, and correctly illustrated in Figures 1 and 2, has been converted into an apparatus comprehensive enough to embrace all existing roller wringers.

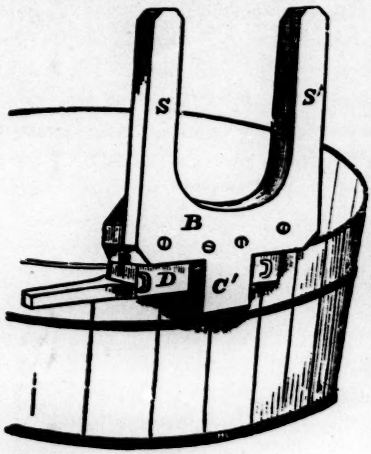


Fig. 3.

The cut, Figure 3, correctly represents the structure sought to be claimed in the reissue patent. S, S′, are supposed to be the uprights or side framing of every modern wringer, constituting, with the bottom cross-bar, a yoke frame, but interpreted by experts to mean "frame" generally, the qualification, "yoke," being capable of rejection if inconvenient to retain, and C′, D is a clamping device.

POINT I.

THE REISSUE PATENT DIVISION 2829 IS FOR A DIFFERENT INVENTION THAN THE ORIGINAL.

The specification of claim in the reissue is expressed in two clauses. It is not unreasonable to suppose that these two clauses are for different subjects of invention. Yet the expert witnesses for the Complainants are obliged to construe the first clause as descriptive of a device which has holding jaws attached, although the claim makes no reference to such, for otherwise a claim to the "employment or use of a portable frame or yoke with uprights or their equivalents for supporting a clothes wringing mechanism in position on one side of a common wash-tub" would be expressly met by Harrison Hagans' patent of 1845, and a multitude of other earlier structures. There is no authority, whatever, for qualifying this intentionally broad claim to a portable frame, etc., by the supposition that it is to be furnished with jaws. With the interpolation of "holding jaws" into the first clause, both claims are for the same subject matter.

We do not desire to be hypercritical, however, in discussing the form of the claims, but are quite willing to consider them as properly drawn and to be in substance a claim for a frame capable of supporting a clothes wringing mechanism of any known kind when such frame has uprights S, S', and a clamping device of some known kind.

Keeping in mind the difference between the drawings of the original patent and the reissue, and referring to Mr. H. B. Renwick's testimony upon the subject, pp. 80–83, we rest this point, upon the authority of the case of *Sickles* v. *Evans & Seagrave*, 2 Clifford, p. 268. *Carhart* v. *Austin*, ibid. p. 528.

POINT II.

ANY CONSTRUCTION OF THE CLAIMS OF REISSUE 2829 BROAD ENOUGH TO INCLUDE THE DEFENDANT'S MACHINE WILL RENDER THE PATENT UNTENABLE IN VIEW OF THE STATE OF THE ART EXISTING AT THE TIME OF THE INVENTION.

Without occupying an unreasonable amount of space in discussing each of the great number of wringing machines which existed before the Sergeant invention, all of which have in some form a frame appropriate for the support of the kind of wringing mechanism used in such machines, we ask attention to the machine shown and described in the Letters Patent granted to *John McLaughlin*, October 16, 1855.

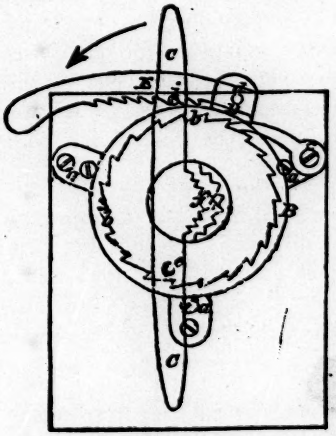


Fig. 4.

A side view of the rotary clamp, or "wringing mechanism," to employ the language of the Complainants' experts when they speak of the like apparatus in the Sergeant machine, is shown at Figure 4, which is a copy of one of the figures in the patent drawings. There is also shown the support, or standard, or yoke frame, or device, by whatever preferred name it may be designated, which sustains and keeps in place such rotary clamp. The wringing mechanism is obviously substantially like that described in the original Sergeant patent and in the division of Reissue 2652. It has a circular central opening through which the clothes as wrung pass. It has a clamp to jam the clothes fast while portions are being wrung. It has a pawl

and ratchet to prevent the twister from being revolved in one direction. It has substantially a yoke frame. (See admissions on each of these points in the testimony of Complainants' expert *Stetson*, pp. 91–93.) It is unlike Sergeant's in the following respects: It is permanently attached to the side of the tub, and the hitching pin is attached to the rim of the tub instead of being placed on a platform hinged to the supporting frame.

It is unnecessary to encumber the argument with any discussion of any real or formal differences which exist between the two machines growing out of the circumstance that the hitching pin is in the one case a part of the machine and in the other case an adjunct of the tub. The hitching pin and its frame have been eliminated from the division of the patent in suit, and if it were otherwise, the Defendants use no hitching pin or equivalent device.

The only remaining point of difference resides in the fact that the Sergeant yoke frame has a clamping device for fastening the apparatus to a tub, while the yoke frame in the McLaughlin machine is intended to be a permanent attachment to the tub. Now

Clamping devices were old and well known

at the date of the Sergeant invention, and from time out of mind have been used to attach all descriptions of small machines temporarily to the bench or other place where they were to be used. The expert witnesses on both sides concur in this.

E. S. Renwick, p. 52, × Q.'s 28 and 29.
T. D. Stetson, p. 71, × Q. 23.
H. B. Renwick, p. 83, Direct Q. 13.

Furthermore,—

A clamping device identical with that used by Defendants and comprehended by Reissue Patent 2829 *was applied to a wringing machine before the Sergeant invention.*

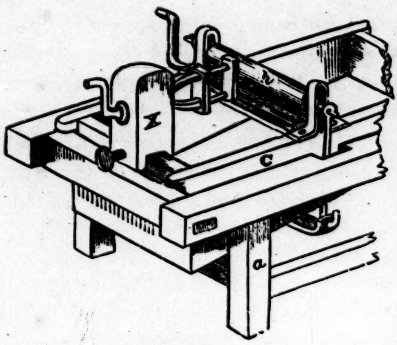


Fig. 5.

Letters Patent for a washing machine were granted to *H. W. Sabin*, August 16, 1845. The specification states (Record, p. 39,) that "the wringing is performed by a common wringer shown attached to the machine and lettered *x*." The cut, Figure 5, correctly represents such wringer. It needs no argument to show that the standard which supports the twister is furnished with jaws and a clamp screw, the two constituting a clamping device such as used in all wringers at the present day.

If the Sabin wringer were also furnished with a hitching pin mounted on a frame hinged to the standard it would embody just the invention which Sergeant made; that is to say, it would be a "self-contained" wringing machine, complete in all devices necessary to wring clothes, and movable from one tub to another. But of what consequence is it in the present inquiry that such attachment of the hitching pin to the supporting standard for the twister is not found in the Sabin machine? Such hitching pin peculiar to a twist wringer has been, with intent to include all families of wringers, *stricken out* of the reissue patent, and it is only important to inquire whether the Sabin machine has a yoke frame which is a support for the twister, and is furnished with a clamping device.

It is a recognized physiological truth that physical training can be carried to such an extreme of completeness as to destroy the necessary conditions of health. It is worth reflection whether mental training in a particular direction cannot also be pushed so far as to disturb the equilibrium of an otherwise well balanced intelligence. Mr. E. S. Renwick, whose mental acumen we would be the last to underrate, was examined as an expert by the Complainants in making their case in chief.

His attention was directed by the Complainants to the reference given in the Defendant's Answer to the *H. W. Sabin* patent, and he states that he does not find the Sergeant invention as set forth in No. 2829 embodied in the machine shown and described in the Sabin patent—"the most prominent difference being that the said Sabin patent does not describe or represent a yoke frame having a *cross piece or uprights* (he does not say that it is not a yoke frame) corresponding with those of the U formed yoke frame described and recited in the claims of said reissued patent. The said Sabin patent does describe among other things a wringing mechanism, a portion of which is supported by a standard having jaws and a clamping instrument adapted to secure the said standard to the side of a wash tub; but the said standard is simply a support for the journal of a shaft and is not a yoke frame, such as is described in the said reissued patent, nor the equivalent of one by reason of the difference I have above referred to." (p. 10, Q. 12.)

It is true enough that the wringing mechanism in the Sabin machine is in form different from McLaughlin's and from Sergeant's. The two latter use a revolving clamp open in the center, or hollow shaft, through which the clothes pass, while Sabin employs a solid shaft with a twisting neck attached. In a word, the shaft in McLaughlin's and Sergeant's is hollow, while in Sabin's it is solid. But in all three the shafts, whether solid or hollow, are mounted in journal bearings, which plain, common-sense, well understood name, expressive of the function, has been tortured in the Sergeant's reissue into "Yoke B with uprights S S'." In determining questions of mechanical identity the law regards not the names given to things, but the functions which such things perform. Tried by this test, the yoke frame in Sergeant's machine or in McLaughlin's is a journal bearing for a hollow shaft seven inches or so in diameter, and the standard in the Sabin machine has essentially incorporated in it a similar yoke frame of perhaps two and one-half inches diameter.

Without repeating the testimony in full in this brief, we respectfully refer the Court to the opinion of Mr. H. B. Renwick to be found on pp. 83–86.

In further illustration of this point, Figure 6 is a view of the Sabin wringer with its clamping device, separate from the combined washing and wringing machine, shown at Figure 5, and which will be readily understood, and upon comparison with the drawings of the patent will be found to be a correct representation of the Sabin clothes twister and portable standard.

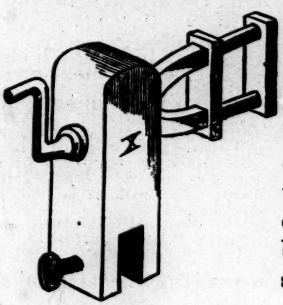


Fig. 6.

C, Figure 7, is substantially the Sabin standard. It differs only in form and proportions, and is so arranged that the shaft can be lifted out of the journal bearing instead of being entered endwise into its bearing. It exhibits no invention over the Sabin in view of the fact that bearings for journals have been so constructed for probably five hundred years.

Fig. 7.

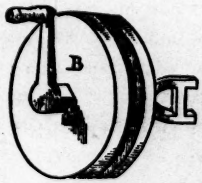


Fig. 8.

B, Figure 8, is substantially the Sabin shaft with twister-neck attached. Its diameter is exaggerated. It represents a shaft of larger diameter than is shown in Sabin's patent, but there is no new function introduced thereby. It is a solid shaft. Place the shaft Figure 8 in its bearing in the standard Figure 7, and close the top with the cap D, and we have the Sabin wringer and standard. Take out the cap D, and the two uprights S S′ show themselves.

Having, as we feel justified in assuming, clearly shown that the *McLaughlin* patent shows and describes a circular rotary clamp or hollow shaft supported in a journal bearing which is a "yoke with uprights" substantially identical with Sergeant's corresponding devices; and having also clearly shown that the *H. W. Sabin* patent shows and describes one of the common and old forms of wringing machines as furnished with jaws and a clamping device which enables it to be changed from tub to tub, the only possible inquiry which remains is

Can the assignees or representatives of Sergeant obtain a valid reissue patent for applying the well known clamping device of Sabin to the well known wringing machine of Sergeant?

No new function is performed by the clamp in the latter case which does not exist in the former. No new or peculiar or distinctive result comes from the combination of a clamp with a Sergeant or McLaughlin wringer which could not be found in the combination of the same clamp with a Sabin wringer. Such mere reshuffling of the pack of elements out of which machines are made does not change the game from one of chance to one of skill. A patentable combination of old elements must exhibit distinctive novelty and be accompanied with some quality which is the legitimate fruit of the combination. Assuming it to be true that Sergeant having before his eyes the McLaughlin "yoke and uprights for supporting a clothes wringing mechanism," and having also before his eyes the Sabin clamping device applied to another of the same family of wringers, conceived the idea of applying the clamp of the latter to the yoke frame of the former, he did not thereby make an invention.

Bean v. *Smallwood*, 2 Story, 408.
Winans v. *B. & P. R. R. Co.*, 2 Story, 412.
Losh v. *Hague*, Web. Pat. Cas. 202.
Harwood v. *Gt. Northern R. R.*, 11 H. of L.. 654.
Regina v. *Cutler*, 3 Car. v. Kir. 215.
Parkes v. *Stevens*, L. R. 8 Eq., 358.
Stimson v. *Woodman*, 10 Wall.
Hailes v. *Van Wormer*, 7 Blatch. 443.

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